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ORIGINAL DEPARTMENT.

LECTURES.

**Clinical Remarks on Lead Colic. Delivered
at the Pennsylvania Hospital, February
13th, 1861.**

By FRANCIS G. SMITH, M. D.

The patient before the class is Hugh Harrison, æt. 34, born in Ireland, nineteen years resident in this country, by trade a carpenter, but latterly engaged in house painting. He has been sick for twenty-six days.

He was attacked while coming into town on the Market street cars, at night, with a sensation as though his fingers were being pricked with sharp needles; during the following day he felt pain in the epigastric region. His bowels had been costive for two or three days, but without pain; about his dinner-time he was attacked with sick stomach and threw up a quantity of watery fluid.

When he came into the house, twelve days after being taken ill, he presented the following symptoms; he had had constipation for several days, with great difficulty in evacuating the bowels, and the fecal discharges were lumpy and dark in color. He had some pain around the umbilicus, and some retraction of the walls of the abdomen. On examining his mouth there was found the peculiar bluish gray line all along the upper margin of the gums, pointed out as a characteristic sign by Benton, of England. In taking his symptoms into consideration, with the line on the edge of the gums, there was little difficulty in determining the case as one of those peculiar forms of nervous disease presenting themselves in this class of patients, known under the name of *lead colic*,

and depending upon the introduction of the lead poison into the system.

All persons who work in lead are liable to this disease, which manifests itself by obstinate pain, of a twisting character, in the abdomen, and retraction of its walls around the umbilicus and the evacuation of lumpy and dark colored fecal matter.

It is also found in those who prepare the lead for the use of painters, those who run the lead pipe for gas or water purposes, all who handle lead in their operations, as printers, etc. Others, sometimes, become the subjects of this disease as well as those who work in lead; persons who are in the habit of drinking water which has been drawn through leaden pipes when the water is not perfectly pure. It has been found in those who drink soda water largely, especially when it is drawn from leaden fountains, and in those who indulge in cider which has lain in a leaden vat; it has also been produced by the daily use of water which has laid in leaden tanks.

Dr. S. had seen a case of a gentleman who had an excellent spring of water about a mile from his house, the water from which he conveyed to his residence through leaden pipes, and conducted it to a tank on the top of his house, lined with lead. After using this water for some time, he and his family began to suffer from constipation, lead colic, and even the cattle on his farm became attacked with the disease.

This disease has received various names; that by which it is best known is *Colica Pictonum*—lead colic. It is also called *Devonshire colic*, from its frequent occurrence in that district, and the name *pictonum*, also, comes from its occurrence in Poictou, a province of France.

That it depends on the direct introduction of the poison of lead into the system is unquestionably true. It has been detected in the substance of muscles in animals who have been purposely subjected to the lead poison. The

poison manifests itself, also, in another way by which it can be recognized, and this patient presents the peculiar symptom referred to. It exists in the form of a paralysis of certain muscles of the body, the extensor muscles of the fore-arm. It is a curious circumstance that when this poison thus exists in the system, it should seem to single out peculiar portions of the body in preference to all others; and it seems to illustrate a doctrine in physiology, that every portion of the body has an especial affinity for some peculiar material or element in the blood, which it draws out, leaving the rest untouched in that fluid.

If this is true of a physiological condition, there is no reason why it should not be equally true in a pathological condition, and thus there seems to be a peculiar affinity between particular muscles of the fore-arm for the lead-poison to the exclusion of all others.

When this lead has thus been drawn from the blood and deposited in these extensor muscles, it produces a form of paralysis, first recognized by an inability to lift the wrist. Hence painters, when working in this material, have their attention first called to the presence of lead in the system by what is called the *wrist-drop*; they find they experience a difficulty in lifting the brush again after having made the down strokes.

In the patient, it exists in the fingers more particularly, though to some extent in the wrist; he cannot stretch his fingers out to the full extent—it is manifested most in the first finger and in the ring-finger particularly, and in both hands. This does not exist in him to the extent that is often manifested, as he raises his hand partially, but he has the drop to a sufficient amount to produce an inability to extend the fingers, and there is a constant disposition for them to be flexed into the palm of the hand.

The paralysis of the extensor muscles of the fore-arm is not accompanied by any rigidity in the parts in which it is manifested. They can be readily drawn up in their extended condition, and they are relaxed instead of being irritable, as in other cases of palsy from different causes.

Some pathologists say that the muscular fibres, in which this paralysis occurs, lose their irritability, so that they cannot be stimulated into action even by the application of galvanism.

In other forms of paralysis, paralyzed muscles seem to be the most irritable; the irrita-

bility seems to be stored up by want of exercise, so that they manifest contractile power upon the application of the slightest stimulus.

Nay, more, it is said that the muscular fibre undergoes positive degeneration and becomes converted into a fatty material, rendering it not only impossible to restore the general health, but the power of these muscles, on the integrity of which the obtaining of a livelihood frequently depends.

What should be the treatment in these cases? To meet the first symptoms, the colic and constipation, a judicious combination of purgatives and opiates generally answers the purpose; laudanum and castor-oil, or, as was given to this man, an infusion of senna, with occasionally some opium to relieve the colicky pains. You can generally succeed in overcoming the constipation; but this is one of the least of the evils: you can overcome the pressing symptoms, but they recur unless you endeavor to eliminate from the system the poison on which the existence of the disease depends.

By many, opium is extolled to the highest degree; and, by others, mercury is said to have a peculiar influence in removing lead from the system. In a strong and healthy subject, it is an admirable practice; but in one somewhat debilitated, whose strength is not great, it is better to save the strength as much as possible, and to remove the poison by means which will not deteriorate the blood and impoverish the system. It is said that the iodide of potassium reduces the lead to a soluble condition, and enables the salts to be readily thrown out of the system, and this is the ordinary treatment practiced, giving to the patient *five or six grains potassii iodidum* three times a day. This will find its way into the blood, select out those portions where this poison exists, convert the salts into iodides which are soluble, and thus enable them to be eliminated, and the iodides be detected in the excretions.

The treatment of the patient has been mainly this: There were first administered purgatives, an infusion of senna, guarded with opium, to relieve the pain; an occasional anodyne enema, with warm fomentations to the stomach; and after having overcome the constipation, the iodide of potassium was given so as to form the iodides of lead.

Under this treatment there has been a certain amount of diminution of the peculiar bluish line along the gums; but there is still enough of the poison remaining in his system to pro-

duce this paralysis, but the hands are much stronger than they were when he was admitted into the house, when he had the wrist-drop distinctly marked. At present he can move it pretty well, and there is also a marked increase in the strength of his fingers. Every day he has the galvanic battery applied, a direct current being sent through the extensor muscles, so as to try to arouse them to action, the effect of which has been beneficial.

If they do not entirely recover their power under the use of the battery, the hands will be put in a splint, and confined to it, so as to let the extensor muscles have a chance to rest, putting them in a state of quietude, and thus enable them to recover their tone, while the process of elimination of the poison is going on. During the past few days some symptoms have manifested themselves, which show that the poison is not yet all eliminated from the system, for a few days ago the patient was attacked with a chill, followed by intense pain in the back, by headache, and some degree of delirium. This is another mode in which the effect of lead poisoning is sometimes manifested.

There was with these brain symptoms, a decided diminution in the quantity of urine evacuated, and he was, therefore, directed to be cupped over the region of the kidney; to have a free purge, and blister applied to the back of the neck; under which treatment he has considerably improved.

New Fusible Metal.—Dr. B. Wood, of this city, has discovered a valuable alloy, which fuses at 150 deg. F., a much lower temperature than the fusing point of any metal previously known. It is especially adapted for light casting, and is composed of one or two parts cadmium, seven to eight parts bismuth, two parts of tin, and four parts of lead. By the addition of mercury, the fusing point may be lowered to almost any extent, without impairing the tenacity of the metal. Cadmium is well known to possess the property of promoting the fusibility of several metals, as copper, tin, lead, and bismuth, though on silver, antimony, and mercury, it has no such effect. These, and other properties possessed by cadmium, will render it as valuable in some of the useful arts, as it is interesting to the scientific inquirer.—*Nashville Journal*.

The New Orleans Medical News and Hospital Gazette will hereafter be edited by Dr. ANTHONY A. PENISTON, Professor in the New Orleans School of Medicine, Drs. WARREN BRICKELL and E. D. FENNER having withdrawn.

COMMUNICATIONS.

A New Method of Treating Barton's and Colles' Fracture.*

By JOHN SWINBURNE, M. D.,
Of Albany, N. Y.

The object of this paper is to place more fully before the profession a simple and effectual mode for the treatment of fractures of the carpal end of the radius, commonly called Barton's or Colles' fracture, depending upon its position.

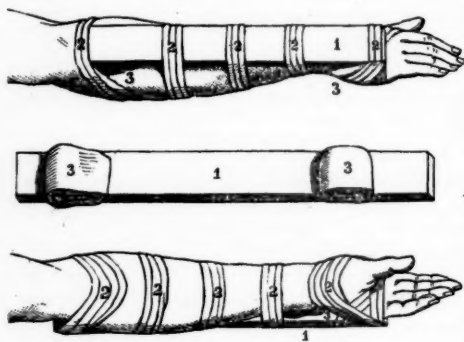
The majority of these cases are complicated, with dislocation of the ulna, giving to the wrist the appearance of simple dislocation.

In my paper entitled "*A Ready Method for the Treatment of Fractures of all the Long Bones by Simple Extension*," read before the last convention of the State Medical Society, I stated that the Colles' fracture was the only exception to this plan of treatment. By exception I do not mean *absolute exception*, for, in this form of fracture, we require the two points, i. e., extension and counter-extension, and, inasmuch as the arm in its normal condition, does not represent a straight line, we require some posterior deflection at the wrist to imitate a normal arm.

This posterior deflection and extension I have successfully obtained by the use of *one* splint, made of thin material, (a piece of cigar box,) and applied to its posterior aspect, no wider than the arm, extending from the point of the elbow to the metacarpo-phalangeal articulation, and having two compresses, one of which fills the posterior concavity of the carpus, and the other to supply the deficiency in the straight line at the elbow. Now, apply the splint (fig. 1.) to the posterior surface of the arm, fasten the upper end of it to the elbow by means of adhesive plaster, enclosing the end of the splint, and applied in a serpentine course about the arm, so that it cannot slide upward. Now, make the proper extension on the hand, and at the same time counter-extend, by pushing up the carpal end of the splint, continuing this effort at extension and counter-extension until full reduction of the fractured radius and dislocated ulna is effected; then the splint is fastened to the hand by the same serpentine application of the

* See also an interesting article in the *REPORTER* for April 2d, 1859, (Vol. II., p. 9,) "On Fractures through the Inferior Extremity of the Radius—their Direction and the Causes of the Deformity." By HENRY H. SMITH, M. D., Prof. of Surgery in the University of Pennsylvania."

plasters. At this period of the dressing it will be seen that the compress (fig. 3) seems to crowd the splint away from the arm, when, in fact, the limb is only straight, which is not its natural condition. All that is now necessary to complete the dressing, is to press the carpal end of the fore-arm gently backward against the splint, and retain it there by the adhesive plaster passed around the arm and splint. (fig. 2-2.)



1. Splint; 2. Adhesive Straps; 3. Compress.

By this simple plan I have now treated eight cases of Colles' fracture, and in all of those where this treatment was carried out it resulted in the full restoration of the limb without the splint ever being removed, and with only an occasional addition of a few pieces of adhesive plaster to perpetuate the extension and retain it in position.

These results are so good that in *Case No. 3*, seen by Dr. Lewis A. Sayre, consulting surgeon to Bellevue Hospital, New York, the affected arm was pronounced as perfect as its fellow. The dressings were removed from this arm on the 22d day of its treatment, and he saw it on the 26th day after the occurrence of the accident. This was distorted at the time of fracture as much as it could be with fracture of the radius, and complete antero-lateral dislocation of the ulna, giving it the peculiar appearance called the *silver fork* deformity.

A surgeon would naturally think that little more could be said of the treatment of fractures after reading the complete and comprehensive work on Surgery, by Prof. Samuel D. Gross, of Philadelphia, in which this subject is fully and ably discussed, and though I may disagree with him on several points, as regards the treatment of fracture, and especially this one, I hope he will receive it with due kindness by showing me wherein I am wrong. In reference to the band

apparatus for the treatment of Barton and Colles' fracture, he says:—"Having encircled the thumb and fingers, the better to control the resulting swelling, and the fracture having been adjusted by pressure and extension, a roller is next passed around the limb as high up as the superior part of the fore-arm, special care being taken that it shall not produce the slightest constriction anywhere."

Now, we start with the assertion that there is no need of bandaging in the treatment of fractures at all, and that the treatment is more speedy and comfortable to the patient without bandages than with them. I have now treated, without any bandages whatever, forty fractures of the thigh, in every portion of its shaft, simple, compound, comminuted, and intra-capsular, and with better results than would be obtained by splints and bandages. I have treated over one hundred fractures of the long bones with no bandaging, and only dressing enough to perpetuate the extension, which, in my humble judgment, is much better than trying to force the bones to maintain their position by lateral pressure with bandages, compresses, and splints.

If the source of irritation, (the fractured ends of the bones,) is removed by their reduction and maintenance by such means as will not obstruct circulation and cause infiltration and inflammation, the precautions as to bandaging are unnecessary. If bandaging, at the time of its application, does not produce the slightest constriction anywhere, the subsequent infiltration and inflammation of the tissues will soon make the limb an uncomfortable bedfellow, as every day's practice will sufficiently attest.

I think it is not the bandaging at the time that produces all the bad results we occasionally see; it is the subsequent swelling. I regret to say that the profession, sometimes, sacrifice everything to appearance. A beautiful dressing (with them) is synonymous with a good result.

Now, if there is no necessity of bandages in the treatment of fractures, why not dispense with them as much as possible, as they are painful and troublesome in their application, and in all the subsequent dressing still more so.

They constrict the limb, producing more or less mischief—1st, by the extra warmth of the parts; 2d, obstruction to circulation; 3d, difficulty of examining carefully the position of the bones; 4th, the trouble, pain, and disturbance of the bones in re-dressings. Per contra, by the plan under discussion the limb is kept cool, is

examined at will, and little constriction ensues. Hence, little or no pain is experienced during the process of reparation, and no disturbance caused in redressing. From the inspection of the wood cuts in Prof. Gross' work in the treatment of this fracture, the hand is allowed to drop or slope, as he says, "so as to put the extensors of the thumb slightly on the stretch," and, in relation to this form of displacement, he says: "The above dressings, (Bond's,) and a modification of Bond's splints will answer equally well, whatever may be the character of the displacement, whether backward or forward." I think that this simple dropping or flexing of the hand to the ulnar side effects something still more important than simply "to put the extensors of the thumb slightly on the stretch." It forces the dislocated ulna backward in its normal position posterior to instead of anterior to the carpus, and in apposition with the os pisiforme. By this means he makes the hand the lever, the ulna the fulcrum, the distorted radius and extensors of the thumb the resistance, while the ulna is moved or pried into its normal position by this leverage. It cannot pass by the pisiform bone in front, and hence a reduction of necessity is effected, though not as complete as could be desired. The radius is, of necessity, elongated, and hence, by these means, extension is obtained without really appreciating it.

Take, for example, an old unreduced Colles' fracture, where the ulna is resting against the os pisiforme, as it is in a recent case—imitate the movements necessary for replacement by Bond's apparatus—note the difficulty in anterior or lateral ulnar flexion.

Here, then, you have the solution of this problem. Lateral flexion and moderate extension replaces the ulna and radius, while the continued lateral flexion retains the ulna and prevents any subsequent displacement; while the extensors could not displace the wrist as long as the ulna plays the part of a radius, even though it is not absolutely in its normal position. The advantages of this form of apparatus can be summed up in a few words:

1st. The hand and arm are in a straight position and not encumbered by clumsy dressings, so that a business man can dress himself and go about as usual.

2d. It can be examined at pleasure, while any lotions do not disturb the dressings.

3d. From the first, the ulna assumes its natural relations with the pisiform bone, and the

whole wrist seem at once restored to its natural symmetry.

4th. The swelling which may ensue does not disarrange the dressings or jeopardize the integrity of the parts.

5th. No re-dressings of the limb become an absolute necessity.

6th. The material is always at hand, easily applied, and with little suffering to the patient, except slight uneasiness for two or three days, after which, I may say, there is almost absolutely none.

7th. Union is effected much sooner by this method when the parts are not constricted and absolutely at rest.

8th. The ultimate restoration of the joint to its normal usefulness is obtained much sooner, for this reason, that there is less infiltration and subsequent inflammation where there is no pressure by splints and bandages, etc., to obstruct circulation than where they are used in the ordinary way, though applied with every precaution.

The simplicity of this dressing recommends its consideration and use, even though it were only *equally* efficient with other modes of treatment.

Six out of eight cases treated by this method were discharged as perfect results at periods varying from twenty-one to twenty-five days, while union was complete at from sixteen to eighteen days. In one instance, it was allowed to remain for thirty-two days, at the earnest solicitation of the old lady, who had already one silver fork deformity—which occurred in the "ould counthry"—and did not desire any more. The remaining two passed out of my hands, one (the Scott case, No. 7.) to the western part of the State, (Livingston county.) I learn, though the dressings were not disturbed after he left this city, that his arm is perfect. This was the Hon. Mr. Scott, who kindly consented to present himself before the State Medical Society, that they might see the dressings as applied, and the position of the bones. None of the learned members could take exception to its position.

The second (Case No. 5) passed into the hands of a New York Doctor, and did not fare so well, as will be seen by the extracts of a report written me by a grandson of the lady. She left here on the fourth day after the accident for New York with all the parts in apposition, and with every prospect of union in twen-

ty-two to twenty-five days. He writes me, under date of February 20th, 1861: "The plasters were all taken off, the wrist bandaged and kept in a paste-board rest. It seemed to mend slowly; but about four weeks after the fracture the hand swelled very considerably, and the skin appeared very much puffed up. Perhaps this was owing to the bandaging too tightly, as, on being loosened, the swelling subsided slowly. About eight weeks after the fall, the bandages were left off, and then it was found that, besides the fracture, the wrist had been very much sprained. The fingers are yet stiff and very clumsy."

This case, when collated with the other seven, stands out in bold relief, and would really seem to require no comments, but inasmuch as I am familiar with the details of the treatment, and the character and results, I will venture to indulge in a few remarks.

1st. The seven treated without bandaging and constriction from the beginning to the end, resulted in perfect arms, and in from twenty-two to thirty days, and some of them were much more bruised and distorted than hers.

2d. While in this special case, No. 5, the extension was removed I suppose about the fifth or sixth day; also, the means of keeping the dislocated ulna in its normal position, were dispensed with, and in its place a bandage was "applied around the hand and wrist, and the arm laid in a paste-board rest. *About four weeks after the fracture the hand swelled!*" At four weeks there should have been no swelling, nor should there have been any need of bandages to make the hand swell and puff, and at eight weeks (56 days) only, the bandages are removed. Surely, time enough was here consumed to have perfected the cure in three such fractures. After all these fifty-six days are consumed in the treatment of Colles' fracture, they gravely tell us that "the wrist had been very much sprained," as if dislocation and fracture, followed by infiltration and inflammation, and aggravated by tight bandaging for four weeks, and moderate bandaging for four more, with no passive motion, is synonymous with a simple *sprained wrist!*

I mean not to reflect unjustly on any practitioner, but simply wish to lay these cases, with their treatment and ultimate results, before the profession, as they were all equally fair cases for good results, and this one in particular.

Case No. 1.—Mrs. —, aged 40, American,

good habits and constitution. Dec. 8, 1861, fell on the ice, fracturing the radius and dislocating the ulna. Dressed with splint on the dorsal surface of arm, as delineated in this paper. Applied cloths wrung out of warm water—pain and swelling disappeared on the third day, but no disposition to displacement in any direction—no redressing—well in twenty-days, and all dressings removed in twenty-two days—arm as perfect as its fellow.

No. 2.—Mrs. J. U., aged 50 years, Irish, office patient. January 4, 1861, Colles' fracture was produced by a fall on the ice—great distortion. Dressed as above. Called at office every third day, when an occasional plaster was added, but no re-dressing until the twenty-third day after accident, when all dressings were removed, leaving a perfect arm.

No. 3.—Mrs. J. R., aged 38, English. Jan. 10, 1861, produced Colles' fracture by a fall on ice. Great distortion and intense pain, which was instantly relieved by the application of the splint with the extension, warm water dressings, etc. Dressing removed in twenty-two days, leaving a perfect arm. This Dr. Sayre, of New York, saw with me on the twenty-fifth day, and pronounced it perfect.

No. 4.—Mrs. J. E., aged 39, Irish, office patient. January 2, 1861, fell on ice, producing Colles' fracture, with great distortion, pain, and swelling. Dressed as above, and though I did not see this patient for three weeks after the injury, and found that there had been no readjustment of the adhesive straps, no re-dressing, the dressings were entirely removed on the fifteenth day by the patient herself, when she commenced using it in her household duties; and I saw it at twenty-three days after the accident; she complained that it was too weak "for washing heavy things with." Notwithstanding the early removal of these dressings, and the little medical attention bestowed, the result was good.

No. 5.—Mrs. W., aged about 60, American. Dec. 5, 1860, fell on ice, producing Colles' fracture, with dislocation of ulna; great distortion, pain, and swelling. Dressed as above—applied warm water dressings. Pain subsiding gradually on the fourth day, when she left for New York, swelling nearly all subsided, and little pain remaining. Parts in perfect position.

No. 6.—Mrs. R., aged 70, Irish. January 20, 1861, fell down stairs, and produced Colles' frac-

ture. Intense pain, great distortion, and swelling. Dressed by the above method and lotions. Union formed in twenty-two days, but from solicitation of patient left dressing on a few days longer, when it was found perfect.

No. 7.—Hon. Mr. Scott, aged 50. February, 1861, slipped on the ice, and produced Colles' fracture, with great distortion and swelling. Through the politeness of Dr. Mason F. Cogswell, of this city, I was permitted to take charge of the case, as also the following one, No. 8. Applied the above dressings and lotions, and on the fourth day he was well enough to present himself to the State Medical Society then in session in this city, with his arm passed through his coat sleeve as usual, and supported by a sling. On the fifth day he returned to his friends, since which I learn that the arm will be perfect, and that no change was made in the dressings after he left the city.

No. 8.—Mr. J. O., aged 50. February 10, 1861, fell on ice producing Collis' fracture, with moderate distortion. Dressed as above—same treatment. Dressings removed in twenty-two days, leaving a perfect arm.

In all of the above cases there is more or less stiffening of the wrist and fingers for a time, but much less than there is when any considerable constrictive power is used, and particularly when the relative position of the dislocated joint and fractured ends are fully restored to their original condition.

There is a second and even more important consideration to be fulfilled, and that is to separate, so as to prevent friction of the dislocated ends of the bone, (without constricting them,) thereby imitating the now received notions for the treatment of recently inflamed joints.

Pathology of Albuminuria. What is the Proximate Cause of the Dropsy?

Read before the New-York and New-England Pathological Society, February 26th, 1861.

By E. J. FOUNTAIN, M. D.

In a lecture delivered recently at the Pennsylvania Hospital, by Francis G. Smith, M. D., and published in the *REPORTER* of February 16th, this query is answered by referring it to the mechanical effect of a stasis of the circulation through the corpora Malpighiana, by which it is assumed there will be "a backing upon the left ventricle of the heart; thence into the left auricle;" thence through the lungs to the right side of the heart, resulting

in a general venous engorgement and consequent infiltration of serum into the cellular tissue of the body.

This explanation is by no means satisfactory; but, before stating objections to it and offering another, which I think I can be better sustained by facts and sound philosophy, it will be well to glance at the different theories which have been entertained on this point by a few prominent writers on the subject of albuminuria. Dr. Copeland refers it (the dropsy) to the thin and impoverished condition of the blood, and to "impairment of the vital affinity between its several constituents, and between it and the blood corpuscles." Andral says it necessarily results from the loss of the albuminous principle of the blood. "It is this principle chiefly," says Dr. C. J. B. Williams, "that gives the blood-liquor its spissitude, which renders it more fit to pass along the vessels, and prevents it from transuding through their walls. This deficiency, (of albumen,) therefore, seems to be a chief constituent of the dropsical diathesis." Dr. Darwell, after stating (*Cyclop. of Pract. Med.*) that the dropsy commences in the *lower extremities*, says he has observed that it shows itself first in the limb corresponding with the diseased kidney, and hence he infers that the dropsy is caused by the enlarged kidney *pressing upon the ascending vena cava*! This is a very ludicrous inference from an erroneous premises; for, in the first place, the dropsy does *not* commence in the lower extremities; but, granting that it does, how could the left kidney press upon the ascending cava, which is to the right of the aorta? And again, would not any pressure upon the ascending cava impede the return of blood equally from each limb? Moreover, pressure upon the ascending vena cava would produce dropsy *only* in the lower extremities. The whole argument is very absurd. Copeland says "that the dropsy is *not* owing to an excess of serum, is shown by its coexistence with a free discharge of urine and diarrhoea, and with an anæmic state of the vascular system in many instances." Dr. Williams says "a watery blood tends to produce dropsy, not only by a greater proneness of the fluids to transude through the walls of the capillaries, but also by the failure and irregular distribution of the force of the circulation." Dr. Alonso Clark (who is good authority on this subject) believes that the dropsy is caused by the retention of *uræa* in the blood, producing

an inflammation of the lining membrane of the blood-vessels, which causes a transudation of serum through their walls. Still another theory is the one expressed in the lecture of Dr. Smith, viz: that the dropsy is the physical effect of renal engorgement, which is supposed to retard the flow of blood through the whole vascular system. Inasmuch as there is evidently a great discrepancy of opinion among authorities, the subject may be considered a fair one for criticism and discussion.

The first objection to the explanation offered by Dr. Smith, which will naturally occur to any one, is that no amount of obstruction to the circulation of blood through an organ the size of the kidney is adequate to such results as a physical operation. Even supposing the current of blood in the renal arteries to be completely arrested, the backward impulse of this interruption would be quickly diffused through the powerful current of the aorta and its numerous branches. If such were the effects of an interruption to the circulation through a large artery, dropsy would necessarily result from every case of aneurism and kindred obstructions, including operations which arrest it completely by ligation or pressure. But no such effect is observed, for the reason that the force of the obstruction is quickly diffused through a large extent of elastic arterial channels, which are so constructed as to become readily adapted to all such changes. Facts teach us that arterial obstructions, equal and far greater than that produced by renal engorgement, do not result in dropsical effusion, and sound philosophy forbids the idea of such a powerful "backing" influence from a cause so inadequate to such results. Still other objections might be urged against such a view. Thus it would be hard to reconcile it with the fact that the dropsy of albuminuria is generally greater in the early stages of the disease, while the facility of circulation through the kidney is in no way increased by its progress. The first stage is undoubtedly one of renal congestion; but this soon begins to subside irregularly in parts of the kidney, which are thus left in a condition of anæmia, while other parts are still congested and in a state of hyperæmia, giving rise to a mottled appearance of the surface. Granular degeneration follows, during which the cellular tissue of the kidney becomes hypertrophied, as in cirrhosis of the liver and emphysema of the lungs, and as in these affections the vascularity of organ is changed to that form which

is peculiar to cellular tissue. From this period the kidney diminishes in size, the new matter deposited in the secreting portion of the kidney following the law of adventitious growths generally in *contracting*. This progresses with sundry changes in the interior of the organ, until it becomes lobular in character and finally atrophied, hard, and irregular in shape. These pathological changes are briefly noted to show how improbable it is that the circulation of blood is less obstructed in the latter than in the early stages of the disease. With the well-known fact that the dropsy is generally greatest in the early stages of the disease, it is hardly probable that it is due to the physical effect of impeded circulation, which is certainly not diminished as the disease progresses, during which the organ changes from congestion and hypertrophy to anæmia and atrophy.

The theory which attributes the dropsy to inflammation of the lining membrane of the blood-vessels, resulting from the presence of the urea, is open to still more serious objections, which may be stated as follows:

1st. The dropsy sometimes, especially in the acute form of the disease, shows itself and reaches its greatest height *before the secretion of urea is in the least suppressed*.

2d. As a general rule, the dropsy is the greatest in the early period of albuminuria, diminishing as the disease advances, and often disappearing entirely in the last stage.

3d. The *urea* is not generally retained in the blood in the commencement of the disease, but its suppression is gradual, accumulating more and more in the blood as it progresses.

4th. Death sometimes takes place as the consequence of uræmic poisoning of the blood from granular degeneration of the kidneys without any dropsical effusion. (Cases of this kind have been presented before the New York Pathological Society.)

The opinion of Andral and Williams that the dropsy is caused by the loss of the albuminous principle of the blood is, probably, the true one; or, at least, it may properly be so regarded until another less free from objection can be substituted. In addition to the arguments above stated incidentally in its favor, the opinion is strengthened by the fact noticed by Andral and Delafond, that sheep affected with the rot become dropsical *only* in those cases in which there is a deficiency of albumen in the blood. They observed that many thus affected were not dropsical, and in all such the quan-

ity of albumen in the blood was found to be natural.

Whether the loss of albumen from the blood produces the dropsy by permitting a more rapid transudation through the walls of the capillaries, as stated by Dr. Williams, or by reducing their power of reabsorbing the watery portion of the cytoblastema (the blastema of Schwann) after the appropriation by the tissues of the elements of nutrition, may be considered an open question. I do not know that the latter opinion has been advanced by any author, but it is one which I ventured to suggest about ten years ago, and I still think it possesses some degree of plausibility. The serous portion of the blood with soluble elements of nutrition must pass constantly and rapidly through the walls of the capillaries to supply the wants of the various tissues, the *débris* of which must in return be carried back in solution with the remaining watery portion of the blastema. This process must be governed by some law of vitality differing from that of endos- and exosmosis. Whatever this may be, it is certain that a free influx of serous fluid from the capillaries into the tissues exterior to their walls must go on constantly in health, and the return of what is not required for nutrition must be as uninterrupted. It is evident, therefore, that a dropical accumulation will take place if this return current is interrupted; and may not one of the conditions essential to the due performance of this function be the presence of a certain amount of albumen in the blood?

There are no open pores through the walls of the blood-vessels through which one liquid may pass more readily than another, and the transudation either way must be by a process akin to endosmosis, which requires a difference in the density of the fluids on opposite sides for its performance. We cannot, by this law, account for the transudation from the vessels of any part of the blood, though it might possibly for its return; and the facility of the latter process may be lessened by the loss of albumen.

This view is, of course, quite hypothetical; but facts seem to warrant the conclusion that in some way the dropsy is so prominently connected with the loss of albumen, that, until a better explanation is offered, we may properly regard them in the light of cause and effect. It is true that albuminous urine does not always produce dropsy. This, however, may happen by the modifying influence of agencies in conditions of the system differing from such

as usually exist in Bright's disease, or the dropsy may depend upon a degree of reduction in the amount of albumen, which is not reached in those cases of temporary and functional derangement where this symptom does not appear.

In the absence of certain knowledge, it is proper always to adopt a theory which is the least objectionable, and regard it as the true one until another is found which will relieve the subject of all obscurity. If unable to do this, some approach may be made to the truth by the easier task of pointing out objections to such as already exist, by which the investigation will be reduced to narrower limits and more progress made in the right direction.

A Case of Un-united Fracture Successfully Treated by Prof. H. H. Smith's Apparatus.

By WM. WATERS, M. D.,

Of Frederick, Md.

Reported by W. D. Brangle.

J. C., about 45 years of age, was kicked by a horse in July, 1858, the injury producing an oblique transverse fracture of the tibia and fibula of the left leg, about midway of its length. After the ordinary treatment for four weeks, the lower shaft of the tibia was found to overlap the upper one three-fourths of an inch, and the fracture was flexible, though the fibula had united. Being called in consultation at this stage of the case, and extension failing to reduce the deformity, I advised rotation to break up the bond of union and extension to reduce the shortening, which succeeded in bringing the fragments in apposition. After this, the case progressed very favorably until some union had taken place, when it was thought advisable to give the patient the benefit of fresh air and exercise, as his health was suffering from confinement. Accordingly, about two months after the accident, Suetin's immovable apparatus was applied, which the patient wore for two weeks, when it was reapplied. Upon the evening of its reapplication, the limb began to swell and continued so to do, though the patient, contrary to advice, failed to give notice of it for forty-eight hours. The immovable apparatus was, therefore, removed and the limb allowed to rest on pillows. In two weeks the swelling had subsided considerably, but the seat of fracture was yet flexible, and, as the patient had suffered from previous confinement

and there was no disposition in the bone to unite, the artificial limb of Prof. H. H. Smith, of Philadelphia, as suggested by him in the *American Journal of Medical Sciences*, January, 1855, was obtained of Mr. Kolbé and applied, the patient being advised to take exercise upon the fractured limb, and thereby produce pressure and motion at the point of fracture, as advised by Prof. Smith. After wearing this for three months, walking all the time, we were gratified in obtaining ossific union, and the patient has now a perfectly useful limb.

Diphtheria in the Valley of Virginia.

By W. H. TRIPLETT, M. D.,

Of Harrisonburg, Va.

Diphtheria, diphtherite, or diphtheritis, belongs to that class of diseases which, by its sudden appearance and fatality, so frequently surprises a household and community, and overwhelm them with consternation and gloom. Like them, it has evaded all persevering research into its nature and origin, and the mind of the physician, eager for knowledge to alleviate human suffering in this department of disease, must at present be satisfied to know its appreciable qualities, and its effects on the economy, and use the remedies which experience may dictate, or future practice may discover to combat them.

On comparing notes of the individual features of this disease, I find some differences to exist between them and the picture presented to me by writers, and, on mature reflection, I am forced to the conviction that it is only a new outbreak of the old-time, old-named, *putrid sore throat*—the sthenic and membranous form of that malady.

Symptoms.—Skin dry and hot; pulse full and frequent, with pain in the frontal sinus, and a sense of great soreness through the back and limbs. The tongue is covered with a pale, white fur, diminishing in intensity as it approaches the apex, where it becomes quite thin, allowing the enlarged and congested papillæ to be distinctly seen through it, and giving the tongue a peculiarly spotted appearance.

On looking at the tonsils they are seen to be swollen, and one or both covered with a thick and yellowish coat of lymph, looking much like laudable pus, but, in reality, firm and resisting to touch of instrument, as hard, unyielding carbuncle. There is no nausea; on the

contrary, the stomach is slow in responding to emetics, the effect of which is soon worn off after emesis.

The abdomen is a little warmer than natural, and somewhat swollen, but no pain is sustained by the patient on firm pressure of its contents. Costiveness is generally present throughout the entire attack, yet diarrhoea is not an unusual accompaniment.

I should notice, here, that in scarcely any of the cases seen by me, or heard from, did the large effusion of lymph and serum in the areolar tissue of the neck occur; hence, I am tempted to believe that it is a symptom peculiar to locality, and not an invariable attendant on this disease.

The above is the picture of the disease presented to the practitioner when called to see it for the first time, and before it has been long on its line of march; presently, if nothing be done to prevent, or applied means are inefficient, the whole roof of the mouth, or hard and soft palate, and Schneiderian membrane, is veiled over, and the respiration noticed to be laboring. Now the case is desperate, and likely to eventuate fatally, since large quantities of false membrane are thrown out by rapid action of the subjacent tissues along the œsophagus and trachea, or rather on their mucous membrane, and death is on the patient by asphyxia. In this class of cases, the invalid dies with a good pulse, and, perhaps, brings surprise to the household as well as physician; for the membrane (sole cause of all apprehension) may have peeled off of all the surface accessible to sight, (leaving the mucous membrane deeply reddened by congestion,) and thereby inducing in the minds of his attendants the impression of recovery, but the little sufferer dies in consequence of imperforate trachea—*smothered*.

Treatment.—Large doses of tartar emetic should be administered early in the disease, that strong emesis may be had, and thereby a powerful impression made; after this, some one of the mild preparations of mercury should be rapidly administered to break down the tendency to plastic deposit.

Gargles may be used, and some blistering ointment, or reubefaciant, applied to the neck; but I have very little faith in the virtue of local applications. Under this treatment, if commenced in time, the invalid will soon be restored to health. If, when the respiration becomes easy, the mucous membrane clear off, and general indications show apparent recovery, and the

patient still linger in feeble convalescence, let strong animal broths and brandy be administered to aid nature in her work.

But this feeble condition marks the province of the other form of throat disease with which diphtheria has associated in its march through Virginia, to give the description of which is only to recount the old story of putrid sore throat: here we find abscess in the tonsils, sloughy ulceration, feeble heart, death coming by asthenia, and not by apnoea, as in the former disease. The treatment is brandy and caustic.

Iodide of Potassium in Gleet.

By H. B. WILSON, M. D.,
Of Boonsboro' Md.

"What is gleet?" has been a question which has exercised the minds of many of our most eminent pathologists, while the answer has been almost as diversified as the number of writers. One considers it a sero-purulent disease, the result of gonorrhoea, and always attending chronic inflammation of the mucus membrane of the urethra in that affection; another looks upon it as totally devoid of inflammation, and brought about by congestion and want of tone in the blood-vessels; while a third regards it as the result of relaxation simply, though having its origin in a specific cause. Professor F. Skey, of England, is of the opinion that it is "a dropical condition, or dropsy of the urethra," which, if let alone, will probably "cure itself." Whatever may be the true nature of the affection, and the experience of Professor Skey as to the ease with which some cases can cure themselves, if let alone, yet it must have come under the observation of most physicians that there are certain forms of disease, which, for a long time, resist the most careful and persevering treatment.

We generally meet with it as a sequence of gonorrhoea, after the active inflammation has been reduced, accompanied by chordee and a sero-purulent or serous discharge; the system is, perhaps, in an anemic condition; all sthenic action and swelling have subsided; ardor urinae no longer exists, except, perhaps, in a slight degree, and nothing remains but the pale, watery secretion to give evidence of any traces of morbid action still left. In such a condition I have found no remedy as efficient as iodide of potas-

sium, used as an injection several times a day, in the proportion of iod. potas. gr. iii. ad. aquae f 3i; and if there be anemic condition of the system, in connection with the above, tinct. ferri and a wholesome but unstimulating diet are great additions. In the case of a young gentleman, who lately came under my hands, who had been suffering from gleet for near one year, and who had tried nitras argenti, acetas plumbi, sulph. zinci, and other remedies without any permanent relief, I put him on Professor Skey's treatment, viz: $\frac{1}{2}$ gr. of sulphate of zinc to an ounce of soda water, as an injection, with tonic remedies inwardly; but the abatement of the gleet was only temporary, though the remedies were used perseveringly; after which I tried sub-nitrate of bismuth with the same result, and at last a trial of the iod. potassium was attended with immediate relief and a permanent cure. In numerous other cases, which seemed to resist all other treatment, I have found its use to meet my most sanguine expectations. The alterative and tonic character of the remedy seems to have a happy effect in allaying the irritable and relaxed state of the mucous membrane of the urethra. It is well worthy of a trial in the troublesome affection of gleet.

Illustrations of Hospital Practice.

PENNSYLVANIA HOSPITAL.

MEDICAL DEPARTMENT.

Service of Dr. Gerhard.

January 23d, 1861.

CHRONIC RHEUMATISM—DISEASE OF THE HEAD, ETC.

The patient is an old seamen. He has been fifty years on the sea; got his rheumatism forty-five years ago in a tropical climate. He has never had rheumatism in the violent, acute form, but always in the subacute form; has had the present attack between five and six weeks. His hands are thickened and swollen; his knees are not affected; there is no effusion, though there is pain; on the right side there is a very little effusion, as evinced by a puffiness of that joint. The ankles are a little swollen, and the patient complains of pain in both ankles. The case is not exactly one of chronic rheumatism, because it disappears and again recurs.

In these cases there is not usually found any great alteration of the heart.

Endocarditis is a necessary result in acute rheumatism; that is, you can always detect

alteration of the heart, which, in nearly all cases, is a result of endocarditis, though sometimes there is more of a lesion than at others. There is, of course, a rasping sound of the heart coincident with the act of systole. This is not confined to the mitral valve; at the semilunar valve it also exists, but to a less marked degree; therefore there is a stiffening of the mitral valve, producing contraction and also dilatation, for, paradoxical as it may seem, these two conditions can and do co-exist.

In the treatment, the iodide of potassium will act best, particularly in cases where there has been venereal disease, and, as seamen are particularly prone to contract such disease, it is always safe to act as if there was such a taint. This is a good remedy, however, even if there is no such taint. Dover's powder is a good means of relief.

The mercurial practice is often resorted to, but the patients don't remain cured very long, and the practice is often positively injurious.

In this hospital, the custom is to resort to all sorts of applications to the surface, by baths, etc.; alone, they are of little or no avail, especially when the disease has become fixed, as it were, in a patient for a long time. It is then almost impossible to get entirely rid of it.

The patient is taking ten grains Dover's powder at night. He also takes five grains twice during the day; he also takes some squills on account of a little catarrh.

A variety of remedies have been recommended for this disease, such as guaiacum, compound extract of sarsaparilla, which latter is more useful to the apothecaries who vend it than to the patient. There are medicines positively beneficial, such as Dover's powder, baths of various kinds, warm clothing, etc.

SURGICAL DEPARTMENT.

Service of Dr. Pancoast.

(January 3d.)

SEVERE CASE OF FROST BITE.

This is what might be termed a medical case of surgery.

The patient is a man brought a couple of days previously from the suburbs of the city, (Germantown,) who had not only had his feet frosted, but his toes actually frozen.

He came in suffering under the constitutional as well as the local effects of the injury.

He was much depressed; debilitated in every way; and it has been necessary to support his system with the strongest house diet, at the same time using stimulants in the form of milk punch.

His feet were frosted a week before he was brought to the house. He had been out all night till near daylight.

At the present stage of the injury the frost bite has lost its specific characteristics, and does not require the special treatment of thawing gradually, which is necessary in recent cases. In these, snow and ice must be applied in a cool room, to guard against too sudden a reaction taking place in the tissues, the vitality of which has been impaired, and the circulation arrested.

This treatment will, sometimes, result in the restoration of parts, which, at first, seem to be dead.

In the present case, the toes of the left foot are in the condition of a sloughing ulcer, and the consequence will be the loss of all the toes, except the small one; and, on the right foot, not only the toes but the foot, as far as the junction of the metatarsal with the tarsal bones.

A warm flaxseed poultice has been kept applied to the part. If it becomes offensive there may be put with it a little yeast, or some beer grains, or chlorinated soda, etc. Sometimes charcoal is employed.

It will be necessary to wait until the line of demarcation forms before performing an operation. When this line is formed, and the inflammatory process around the part has ceased, the toes will be lost, and, perhaps, part of the metatarsal bones. Amputation will be necessary, and, in the right foot most probably of the metatarsal bones, with the lower range of the tarsal bones.

JEFFERSON MEDICAL COLLEGE.

January 19th, 1861.

SURGICAL CLINIC.

Service of Dr. Pancoast.

CLUB-FOOT; TENOTOMY; DIVISION OF THE SOLETS.

In dividing a tendon for club-foot and similar deformities, a cicatricial tissue is formed between the divided ends, forming a new tendon, which, in some cases, contracts again, and the deformity returns. Where, in club-foot, the tendon is hard, and the head of the gastrocnemius muscle tense also, then it is proper to cut the tendo-Achilles itself; but this condition forms an exception to the general rule, for it is generally found that it is only the soleus muscle which is at fault, the head of the gastrocnemius not being found rigid, and, therefore, it is unnecessary to divide the common tendon, when a division of the muscle at fault is all that is necessary. In the present case (a child five months old) the tendon of the soleus was divided subcutaneously with the tenotomy knife of Bouvier, when the foot assumed its normal position.

CYSTIC TUMOR ON THE BACK OF THE NECK— REMOVAL.

This is quite a large tumor on the back of the neck of a little child. It is made up of blood cysts. It might be called an aneurism, in which the arteries are not concerned. It is a venous aneurism from anastomosis, being merely all the capillaries of the part enlarged. The tumor has a blue look. It is a tumor in which to the ends of the veins cysts form, these cysts being filled with blood.

They have been best described by Mr. Paget. They are exceedingly frequent on the neck.

They are often found in children.

Such tumors on the cheek should be treated by laying open the integuments, and twisting and tearing the mass out, which is sometimes done easily, but sometimes only with great difficulty. They sometimes occur on the back and attain a very large size.

An incision was made in the integument over the tumor, and the mass removed by evulsion.

STRICTURE OF THE URETHRA, WITH VARICOSE ENLARGEMENT OF THE CORPUS PAMPINIFORME.

The patient is an adult. The varicose condition of the corpus pampiniforme has existed as long as he can remember. The only cure for this condition is by the introduction of a subcutaneous ligature. This condition is often hereditary.

The stricture in the urethra is just in advance of the bulb, $5\frac{1}{2}$ inches down, as determined by the introduction of a bougie.

The stricture was divided by means of a blade concealed in a catheter. These blades are made just sharp enough to cut the resisting fibrous bands which make the stricture, but are not sufficiently keen to cut other structures which yield before it. If other parts should be cut in an operation of this kind, the urine must be drawn off from the bladder by a catheter to prevent infiltration, and there is no risk of injury. If the water cannot be thus drawn off, then the patient must not be allowed to micturate for several hours, during which time the wound becomes filled up with coagulated blood, and thus all danger of infiltration is prevented.

To cut from before backward, as the instrument is passed in toward the bladder, is more hazardous than first passing the catheter beyond the point of stricture, where it can be done, and cutting as the instrument is withdrawn.

After the operation, the largest sized catheter was readily passed into the bladder.

SCIRRHUS CANCER OF THE BREAST—REMOVAL— POST MORTEM.

This is a scirrhus disease of the breast, with an affection of the glands of the axilla in an

old lady, whose constitution is beginning to suffer, making the case a very unfavorable one for an operation.

She has been warned that the disease is almost certain to return, and that her constitution is so affected, she may not even be able to stand the shock of the operation. But she suffers such continual agony, that she says she would rather run the risk of death, a return, or immunity from the disease, than have the continual stinging, lancinating pain, from which there is no relief, and she insists on having an operation performed, for which her immediate relatives are also anxious, though they have been made aware of the dangers which may result.

The danger of the operation is increased by the necessity for the removal of the axillary glands.

When the gland alone is diseased the cellular structure of the arm pit need not be opened. In this case, therefore, the incision will begin higher up than in the case lately operated upon before the class, (See REPORTER Jan. 26, p. 451,) opening into the cellular space of the arm pit, and then surrounding the gland.

In taking out the glands of the axilla, they will not be dissected out, for this would cause a great deal of hemorrhage from the division of the blood vessels—some of them lie between the great axillary artery and the vein, and should be separated with the fingers, which is the only instrument with which they can be separated safely. The intercostal nerves have to be cut off.

I look upon scirrhus enlargement on the outer side of the breast, of which this case is an example, when removed in the early stage, as least likely to be followed by a return.

The incisions were made as detailed, and the breast removed by evulsion. There was no buckshot cancer.

The glands of the arm-pit were enlarged and very hard; they were removed with the fingers in like manner.

The cancer had grown fast to the muscle, and a portion of the pectoralis major had to be removed beyond the growth. It was also found necessary to remove some periosteum from one of the ribs, in the vicinity of the mass, as that structure had also become involved.

The bleeding vessels were secured by pins, allowed to remain five or six hours, which produce no irritation, and arrest the blood, and where applicable, are preferable to the ligature.

The parts were brought together by a few stitches, supported with adhesive strips. No bandage was applied.

Subsequent History of the Case.—The operation was performed on Saturday. Everything went on apparently prosperously until Sunday evening, when the patient was seized with continual vomiting, which could not be arrested, though every means was tried, and she gradually sank,

dying the next day. She had had no hemorrhage.

A post mortem examination of the body was made, and the stomach was found filled with nearly a quart of fluid, resembling black vomit.

The wound had united everywhere, except in the axilla.

No air or fluid was found in the chest, to test which a trochar was introduced.

It is an invariable practice with Prof. Pancoast never to operate upon a patient without first keeping him quiet for a few days, and giving some aperient medicine, occasionally a little blue mass, to put the liver and digestive organs into a healthy condition.

This patient was somewhat feeble and delicate, and against every persuasion that could be urged, she would not have the operation postponed until her constitution could be brought into a more favorable condition, and she would not be prepared by a course of diet.

She could not sleep at night. She was in a great state of nervous anxiety, which might have had something to do with the derangement, giving rise to the continuous sickness of stomach, etc.

The case in which the mammary gland was removed, some two weeks previously, (see *REPORTER* January 26, p. 451,) has gone out with the greatest satisfaction to all parties.

EDITORIAL DEPARTMENT.

PERISCOPE.

THE CHRONAL LAW OF THE PULSE.

Dr. Alexander McBride, of Beria, Ohio, makes the following remarks and deductions from observations on the pulse:

In 1859, I treated more cases of bilious fever than during any previous year. The cases were mostly in and about a marshy district. In the course of the season I observed that during the principal part of the fever, the pulse was in the men patients, at 86 per minute; in the women generally higher. This was so uniformly so as to attract my attention; and further observation through the season confirmed the fact that 96 in man and 108 in woman was the standard pulse of the season. In cases where there was gastro-enteria, or gastro-enteric irritation or inflammation, or other special irritation, super-added to the ordinary fever, the pulse rose to a higher point. I further observed, during the same season, that quinine would not interrupt the fever in man, unless the pulse was at or below 72, nor in woman till at or below 84. My observations this season (1860) have confirmed, accurately, the above, having treated numerous cases of miasmatic fever.

Recently, I was struck with the remarkable fact that those numbers which the pulse usually indicated were exact multiples of 12, and that the stages of increase and diminution were 12; from which I conceived that there must be some exact law of gradation. I began, therefore, a series of careful observations on the pulse of individuals in all conditions, both of health and disease, which resulted in a remarkable confirmation of the conception, and from which observations I deduce the following choral law:

1st. The number of pulsations per minute in the adult man, in a state of health and repose of body and mind, are 60; of the adult woman, 72. There are a few exceptions in which they will be found respectively 48 and 60. Both in sickness and health, the corresponding grade of woman's pulse is 12 above man's.

2d. Uneasy attitudes, and various disturbing causes, vary these numbers. The pulse of men, generally, during business hours, and also of women, is often found from 12 to 36 above these numbers; but it is seldom found to remain long on any other point than one of the multiples.

3d. The accidental variations from the multiples of 12 are more common in ordinary health than in fever.

4th. In fever the pulse will always be found, when regular, at 72, 84, 96, 108, 120, 132, 144, 156; above which last point the patient will die, if a woman, and when above 144, if a man. In some exceptional cases the patient will die with pulse not above 108 up to the time of death, or until it is lost. In other cases the pulse will arise to 144 or 156, near the time of death, and then descend with some regularity till lost a short time before death.

5th. The pulse will be found at intermediate points for a brief period during the transit from one point to another, and while the patient is under temporary excitement, either mental or physical; but under permanent or continued excitement it will settle on a regular point.

6th. The lowest grade of febrile pulse in man is 72, in woman generally 84, except in some peculiar typhoid states, when it falls actually below standard. But it is questionable whether fever really exists in such a state.

7th. The pulse of children obeys the same law of gradation by 12, though it is often difficult to keep a child quiet long enough to make an accurate observation.

8th. There are some apparent and probably some real exceptions to these laws; but in by far the most cases, when a pulse is found to vary from these numbers, it will settle to the grade above, or below, in a few minutes, except regular sub-grades, which frequently continue longer.

9th. In persons in ordinary health there will be found more variation when hungry, when greatly fatigued, and after a full meal, than at ordinary times. Excessive use of tobacco, and

other causes which weaken or derange the nervous force, cause irregularity.

10th. A pulse of 84 or 96 is not of rare occurrence in persons of ordinary health during business hours; 72 and 84 are the most common numbers during the day.

11th. In many cases, both in health and disease, the pulse will rapidly increase or diminish in frequency when first manipulated, and in some persons this irritability will continue several minutes, so that it will be found at any irregular point between the true point and the grades next above and below; but unless there is some peculiar state of health or disease, it will generally soon settle on a regular grade or sub-grade. The regular differences of number between lying, sitting, and standing, are by grades and sub-grades, depending upon the nerve force of the individual.

12th. There is a regular *sub-gradation* by six found in persons of ordinary health, while standing, sitting, etc., and in convalescents: these pulses of 54, 66, 78, 90, etc., but in most cases of short duration. There is also a more transient *under sub-gradation*—sixths and thirds of 12, which give pulses of 58, 62, 64, 68, 70, etc., as high as 154; these are all more transient than the regular sub-gradation by 6.

Uneven numbers are of exceedingly rare occurrence. Pulses of the under sub-grades and uneven numbers may all properly be called *transition pulses*.

I think the reason we often have pulses reported at irregular numbers is, that they are not *carefully* counted long enough. Example: An error of counting of one in a quarter or two in the half minute, gives an error of four in the minute; hence we get 64, 68, 76, 80, etc. An error of one in the minute gives 61, 70, 73, 83, etc., which must generally be erroneous. Another fruitful cause of error is the omission to notice the irregularity of the first ten or fifteen seconds.

ON THE HÆMATIC SWELLING OF THE EARS OF THE INSANE.

The following, from the *Allg. Zeitsch. für Psychiatrie*, we find in the *Dublin Medical Press*:

Dr. GUDDEN first points out that ears closely resembling those of the insane affected with blood-swelling are not unfrequently met with amongst ancient sculptures depicting pugilistic athletes. This condition of the ear was produced by the blow given by the strong arm of the boxer, his hand being enveloped by a leather thong. He next criticizes the explanations of their occurrence in the insane usually given, as exemplified in Fischer's treatise, one of the latest on the subject. Fischer believes that such swellings are never met with, unless preceded by chronic inflammation of the cartilage and its covering, the anatomical effects of which consist chiefly in the production of cavities of

various sizes in the substance of the cartilage, or between it and the perichondrium. These, the author maintains, are due to the employment of violence, and, according to the degree of this, sanguineous effusion, also, may or may not take place—any inflammation which may result being only secondary to such violence. He also disputes the statement made by Fischer and other authors that these effusions take place only under the influence of scorbutic or other dyscrasies or cachexia. The only influence of such conditions would be to facilitate the effusion of blood after the violence.

Among the proofs which he adduces, of violence being the cause, are the fact of marks of finger nails being frequently present, the left ear (more exposed to violence from the right hand) being usually the one affected, and the greater frequency of the occurrence in men than in women; the latter being less exposed to violence and their ears being better protected by their hair and by their dress. Paralytic patients (paralytic males being more frequent than females) are more liable to such swellings than others, not owing to the presence of a dyscrasia, but from their greater liability to ill-usage and their insensibility to its effects. As to the assertion made by Flemming that this injury is self-inflicted, the author replies that during ten years' residence in large asylums he has never met with an instance in which the injury could be traced either to the patient himself or to other patients, while he has been often able to bring it home to the attendants. The frequent accompaniment of the marks of finger-nails show that the ear has been seized and violently pulled by the fingers. Since he has laid down the rule in the asylum to which he is attached of holding the attendants liable for the occurrence of the swelling, the number of cases has remarkably diminished.

CHLORATE OF POTASH.

Dr. S. C. Shapard, of Flat Creek, Tennessee, as reported in the *Nashville Journal of Medicine and Surgery*, regards chlorate of potash, in fifteen grain doses, three times a day, as a sovereign remedy in the sore mouth of nursing women.

Dr. E. J. Fountain, of Davenport, Iowa, writes as follows to the *Medical Times* of New York:

"I now have another case of hip-joint disease rapidly recovering under my treatment by the chlorate of potash. It sounds very ridiculous to me to hear of poisoning by the chlorate of potash, when I have taken half an ounce of it at once, and prescribed it so freely, and encouraged its use to such an extent among my brother practitioners of this place, that one hundred pounds of it were dispensed by the druggists of Davenport during the year 1860. This amount—one hundred pounds—was consumed

by patients in Davenport and its vicinity; and I have yet to hear of the first case of poisoning from it. I am growing more fond of it every day, and all the time finding new uses for it. Its power is truly wonderful. Those who compare its powers to the nitrate of potash, know nothing at all about it."

We have used the chlorate of potash in doses of from five to ten grains every three hours, with much satisfaction in cases of phthisis pulmonalis, which seemed to be beyond the reach of successful treatment.

CALCULI IN THE BLADDERS OF THE DOG AND THE TURTLE.

Dr. S. W. Gross reports in the *North American Medico-Chirurgical Review*, a case of cystine calculus in a dog. The calculus was semi-crystalline, and covered with smooth tubercles; its weight eighty grains, and its specific gravity 1,060.

Professor Jeffries Wyman sent to the Boston Society for Medical Improvement (*Medical and Surgical Journal*, Feb. 28,) a specimen of carbonate of lime calculus taken from the bladder of a turtle (*Emys Floridana*.)

"The specimen was given to me by Dr. A. S. Baldwin, of Jacksonville, East Florida. It is of a nearly spherical shape, somewhat tuberculated on the surface, and about $2\frac{1}{4}$ inches in diameter. In attempting to make a section through it with a fine saw, it broke, and was then shown to consist of an external shell, containing a crumbling mass, with traces of concentric arrangement. When first opened it was somewhat moist within, but soon became dry and friable. There were also imbedded in it masses of what appeared to be inspissated mucus. The weight of the tortoise would have been about 15 pounds."

REVIEWS AND BOOK NOTICES.

PHYSIOLOGY AND PATHOLOGY OF THE CENTRAL NERVOUS SYSTEM. By C. E. BROWN-SEQUARD, M. D., etc. Philadelphia, 1860. LIPPINCOTT & Co. pp. 276, with plates.

DIAGNOSIS AND TREATMENT OF THE PRINCIPAL FORMS OF PARALYSIS OF THE LOWER EXTREMITIES. By C. E. BROWN-SEQUARD, M. D. Philadelphia, 1861. LIPPINCOTT & Co., pp. 118.

In these two volumes we have, in condensed form, the results of the labors of this distinguished experimental physiologist. Probably no living author has labored more unceasingly, or with better success, at the difficult task of unfolding the *modus operandi* of the nervous

system. We had the pleasure of attending his lectures, delivered in this city some eight years since, and recognize many of his statements in these volumes as among the propositions then promulgated by him. In fact the whole of his theory of the transmission of sensitive impressions in the spinal cord, is but the development of the views he then taught. The first of these volumes consists of the course of lectures delivered by him at the Royal College of Surgeons in 1858, which were published in the *Lancet* of that year. In these he treats of the theory of reflex action and its application to movements, secretion, and nutrition, discussing the views of the principal writers on the subject, and illustrating his views copiously by cases reported in various journals. His acquaintance with the literature of the subject is most extensive, and shows a careful collation of the records of medical science. The successful application of a hypothesis to the elucidation of the many apparently contradictory facts related in the history of paralytic cases, is, to our mind, the most satisfactory evidence attainable of its correctness. The plates at the end of the volume are beautifully executed—such as are seldom seen in American publications. They have evidently been drawn by Parisian artists, and are, probably, the same as those which ornament a simultaneously appearing European edition of the work. By introducing them Messrs. Lippincott & Co. have greatly enhanced the value of the work.

The volume on Paralysis of the Lower Extremities is likewise a republication of lectures, delivered in Glasgow in 1859, and published in the *Lancet* of last year. It is a most important work for the general practitioner. In it he analyzes and classifies cases of paralysis due to reflex action, (a small, but very important class,) to myelitis, meningitis, simple congestion, white softening, hemorrhage, tumors, etc., with excellent directions as to treatment. This book may be said to contain the gist of his labors, in a practical point of view, except with regard to epilepsy, which he treats of in the former volume. Those who wish to follow the course of investigation now being pursued by experimental physiologists, will find Brown-Sequard's work on the Central Nervous System indispensable to them. It is much to be wished, however, that this gentleman had the same power of arranging his subjects, and co-ordinating his views, that he has of devising and successfully performing his experiments. One rises from the perusal of his writings with the feeling that he has acquired a number of loose facts, without any string to tie them together. In the volume on Paralysis we notice a marked improvement, however, and trust that we may yet receive from him a theory of the nervous system as much in advance of those now held, as Bell's and Marshall Hall's were upon their predecessors.

A HANDBOOK OF HOSPITAL PRACTICE; OR, AN INTRODUCTION TO THE PRACTICAL STUDY OF MEDICINE AT THE BEDSIDE. By ROBERT D. LYONS, Dublin. Samuel S. and Wm. Wood, New York, 1861.

This is an admirable manual of the kind, containing rules for clinical examinations of disease, the structures and excretions for post-mortem examinations, with an explanation of the different signs elicited in different organs in health and in disease. In addition, directions are given in the art of writing prescriptions. There is a glossary at the end, and several blank formulæ are attached of convenient methods for reporting cases. To those who desire a work of this kind we would most certainly recommend it.

THE MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, SATURDAY, MARCH 9, 1861.

THE IMPOSSIBILITY OF ACCLIMATIZING RACES.

In a recent review of some modern narratives of arctic life and explorations, in the *British and Foreign Medico-Chirurgical Review*, the writer presents arguments against the possibility of actually and permanently acclimatizing any race which is foreign to the soil. Taking, for illustration, regions in which the opposite intensities of solar light and heat exist, as in the tropics and the arctic regions, and their inhabitants, as the Esquimaux and the Negro, it is admitted that a transfer of either from the opposite extreme of climate would soon show their inadaptation to the change, and the vicissitudes to which they would be subjected would soon prove fatal to both. Yet each seems, by nature, to be fitted to withstand the deleterious influences which surround him in his native region. The Negro luxuriates in the parching rays of an equatorial sun, can subsist in health on a light diet of tropical fruits, and is invulnerable to the pestilential miasms of the jungle. The Esquimaux, perhaps, even enjoys life in regions where darkness reigns during a quarter of the year, without any vegetable food and with but a snow-hut for his dwelling.

It is evident that races are born with constitutions peculiarly adapted to resist the sur-

rounding vicissitudes of light and heat, and with ability to subsist on such material for nutriment as their respective localities supply. While thus individual races, which inhabit the extremes of latitude, cannot bear transplantation, the inhabitants of the temperate zone possess, temporarily at least, an adaptability to almost all latitudes, and may, provided the persons so situated adopt the habits of life of the autochthones, continue in an ordinary condition of health. But a thorough transplantation and acclimatization of a race from north to south, or from south to north, has never taken place; for, although individuals may, as has been said, exist under certain circumstances in health, yet physiological incompatibility will, ere a generation expires, be evident, and failure in propagation of the race will soon bring about its extinction.

The circumstances which prevent any race from becoming actually cosmopolite, are evidently those connected with latitude—with the extremes of insolation. That a perfect transplanting and acclimatization in the direction of longitudinal measurement cannot be accomplished, is not so evident, but the article to which we have alluded, insists on the same impossibility of adapting nations to other localities, east or west on the globe, to that in which they have habitually resided. The Anglo-Saxon, he asserts, can only exist in health, and the race be propagated with vigor, on its hereditary soil in Europe. He asks, "Is the Celt or Saxon thriving in North America?" "Is the Red man fitted for a large portion of the Eastern hemisphere?" "Is the standard of health as high among the natives of the Union as it is among their progenitors in the British Isles?" That the standard of health is as high among the natives of the Union, cannot be denied. If the general longevity in the United States is not so great as in Northern Europe, the failing may be accounted for by circumstances independent of the difference in longitude, and the average of human life is much lessened by immigration from our ancestral soil, flooding the country with a cachectic population. But the reviewer thinks that immi-

gration, by continually replenishing the vigor by engrafting from the old stock, is the only means of saving the American people from dying out in a generation or two. He says:—"We believe it would fail and gradually die out, and that the time would come, however distant, when the Saxon would no longer be found in Australia, in Kentucky, in Tennessee."

Whether the Red man is "fitted for a large portion of the Eastern hemisphere," cannot be from practical observation answered, but that the White man "waxes strong amid the forests of the Far West," is well known to every one who has seen the hardy "backwoodsmen" who form the van-guard in the westward march of civilization. The best physically developed class of men we have ever seen, were not only natives of the very States which are instanced as fatal to the Saxon, but were descendants from an ancestry of pioneers whose axes broke a way for the sunlight to reach, for the first time, the soil of those forest states.

In perfection of physical development, America has produced instances which are presented to the world as unequalled. Some which have lately appeared, far exceed any precedent. The strongest men known in modern times, are Dr. Windship, of Boston, and Mr. Thompson, of Chicago—the former about twenty-eight years of age, and weighing less than one hundred and fifty pounds. We have seen him pile up ten kegs of nails, weighing eleven hundred pounds, tie a rope around them to keep them together, and then, seizing the rope with his hands alone, swing them in the air. Each of these gentlemen has lifted, with the aid of straps on his shoulders, about a ton, and a number of other persons have accomplished feats that approximate these efforts which throw into the shade those European Samsons, Thomas Topham and the Belgian Giant. In a late pugilistic contest, an American, whose wonderful physical powers were developed even on the very western verge of this continent, showed himself, on English soil, superior to the previous fistie champion of the world.

While admitting that differences in latitudes, with their climatic accompaniments, render

great changes of residence, from north to south, or from south to north, intolerable, yet there is no evidence that a migration, east or west, on the same parallel, will at all impair health or longevity, or produce a procreative degeneration of a race.

Such removal, with its attendant changes of habit and diet, certainly does produce some physiological changes; but these do not necessarily involve a sacrifice of health or longevity. It has been remarked that Americans whose ancestry was the primitive settlers of the country, and have descended unmixed with foreign stock, have acquired a resemblance to the real autochthones of the continent—the American Indian. Of such descent are numerous families in the New England and Western States, and the tall, bony, athletic figure, high-cheek bones, and long, straight hair, so frequently seen in those regions, seem rather in favor of the observation. Indeed, the typical "Yankee" is always depicted in this outline.

We may assert, from observation, that such physiological and physiognomical change is not accompanied with a deterioration in health or abbreviation of longevity. We do not think that the model "John Bull," with his dumpy figure, round, plump face, capacious abdomen, and short limbs, is, notwithstanding his advantage of residence in the locality which, according to the reviewer, nature intended for our race, any nearer than the preceding portrait to the Apollonian pattern.

THE NECESSITY FOR A PERMANENT SECRETARY OF THE AMERICAN MEDICAL ASSOCIATION.

A serious defect in the organization of the American Medical Association is that by which the office of Secretary continues only through two of its meetings. This body should have one permanent officer with a fair salary, whose duty it shall be to familiarize himself with the plan and working of the Association, to become acquainted, as far as possible, with the profession of the country, and have some general idea, at least, of the status of its members, and of those who propose to become such.

An attempt was made at Washington City, in

1858, to establish the office of permanent Secretary, but it failed, in consequence of the very general and, in the main, very proper dislike that exists to meddle with constitutions.

We can see no objections, however, to amending the constitution of the Association, so as to allow of the appointment of a permanent Secretary, with a salary. On the contrary, the force of argument is altogether in favor of such a course. The duties of the Secretaryship are too onerous and too important to be performed without adequate remuneration. It should be demanded of him that he have an intelligent oversight of the general interests of medicine, and of medical men throughout the country, especially as connected with the Association. The profession of the country should feel free to communicate with him on matters connected with medical organization, medical ethics, or any subject proper to be explained by the chief scribe—Secretary of State, so to speak—of the national organization.

As a part of his duties, he should aid the Committee of Publication in the performance of their work, should, in particular, look to the prompt appearance and to the typographical correctness of the publications of the Association. With such an officer, if competent to perform his duties, such errors as a correspondent called attention to in our last week's number, and which cannot be avoided while the present plan is in vogue, would not occur.

We trust that this important matter will be brought to the notice of the Association at its next meeting, and an amendment to the constitution proposed, to be acted on at the succeeding meeting.

Paying for His Practice.—An Arab was cured of a frightful malady by the English physician who was traveling in the East with Lamartine. After the completion of the cure, the Arab went to the English doctor, not to pay his bill, but to ask for a considerable pecuniary gift. On the physician peremptorily declining to adopt this course, the Arab remarked that he had hoped to find him more ready to manifest this gratitude to God for conferring on him knowledge enough to cure such mortal diseases as he, the Arab, had lately been struggling against.

Correspondence.

MASSACHUSETTS CORRESPONDENCE.

Boston, March 4, 1861.

SANITARY ASSOCIATION—ADULTERATION OF MILK.

MESSRS. EDITORS:—I propose giving you a little miscellaneous news this week. The Sanitary Association held a meeting at the State House last week, when Dr. A. A. Hayes made a report on the adulteration of milk. He said \$1,300,000 was annually paid for milk in this city, of which sum \$150,000 is paid for that which is not milk, more than one-quarter being some foreign substance. The first and most important falsification is with water, added either salted or fresh to the milk; also, with water colored, and sweetened with molasses, from which sickness and debility inevitably ensue to the persons using it. The second falsification is with bi-carbonate of soda, intended to prevent souring, and to make milk slightly changed, passable to the taste.

The largest part of the watered milk comes from Charlestown, where there is a regular manufactory.

The want of cleanliness in the vessels used is a cause of much sickness. He thought there was less bad milk sold here now than there was four years ago, the efforts to prevent its sale having produced some effect.

Dr. Hayes described the "hydrometer" used to detect water in milk, and considered it a good test. He next spoke of the adulteration of cheese and butter. The former was often injured by being placed on newly-painted shelves, when partially prepared. The poorer qualities of butter are largely charged with salt, and sometimes cheesy matter constitutes one-fourth of it. Lard is often mixed with it. He commended the preparation of consolidated milk.

Prof. Horsford, of Cambridge, said, if milk is cooled to a temperature of melted ice, and put in cans filled so as to prevent "cheesing," it can be carried from remote parts of the country without injury.

Dr. Hayes considered this plan impracticable.

Mr. Leander Wetherell expressed his doubt of the infallibility of the "lactometer," and Hon. Josiah Quincy, Jr., gave an interesting account of his experience as a milkman. His cows gave six hundred quarts a day, and the quantity could be increased, but it would be at the expense of the quality. Proper and sufficient food were necessary to make good milk.

WHAT BECOMES OF ALL THE OPIUM?

One of the curious facts revealed by the publication of custom-house tables is, that there was imported into this country last year 300,000

pounds of opium. Of this amount it is estimated, from reliable data, that not more than one-tenth is used for medical purposes. The habit of eating opium is known to be spreading rapidly among lawyers, physicians, clergymen, and literary men, and enormous quantities are used in the manufacture of those poisonous liquids which are dealt out in drinks in the saloons and groceries that infest every city and village in the country.

CITY MORTALITY.

The city registrar reports 74 deaths the past week—41 males and 33 females. Twenty-nine were children under 5 years. As usual, at this time of the year, consumption leads all other causes of death, there being 11 cases.

There were 4 deaths each from congestion of the brain, convulsions, scarlatina, and pneumonia; 3 from brain disease, and 2 from accidents, gastritis, typhoid fever, whooping cough, old age, paralysis, and diphtheria.

VITAL STATISTICS OF NEWTON—SHOE LEATHER.

From the annual report of the town clerk of Newton, it appears that during the year 1860, 245 births occurred in that town, of which 122 were males and 123 females, an increase of 35 on last year. The whole number of deaths 94, or 32 more than in 1859; 14 died of consumption and 12 of scarlet fever. The town clerk bears his testimony to the efficacy of thick-soled boots as a preventative of consumption, for he says:

"The number of deaths by consumption has usually been about one-fourth of the whole; the past year but 14; a favorable change in the leading disease of New England. The favorable result of the change from thin to thick soles on the boots and shoes of our females is already visible. Should the recent fashion of thin soles again be attempted, it is hoped the ladies of Newton will stand firm on their *thick* soles."

IMMIGRANT STATISTICS.

In looking over several reports for the year 1859, I came across the annual report of the superintendent of alien passengers for the port of Boston, and found in it a great deal which I thought might be of interest to your readers, and show them the class of persons who fill our charitable institutions. It seems the whole number of passengers arriving at this port for that year, was 14,623, in 807 vessels from foreign countries, as follows, viz:

In 33 American vessels, from England,	4,635
70 " " " Brit. Prov.	2,801
6 " " " Fayal,	267
3 " " " Gottenb'g,	42
35 " " " other pl'ces,	142
27 English vessels, from Liverpool,	2,251
581 " " " Brit. Prov's,	4,348
52 " " " other places,	137
807 vessels. Total number passeng's,	14,623

Of these the number of Americans, and others of whom no bond could be required, was	- - - - 7,520
Number commuted, at \$2 each,	- - - 7,013
Extra commuted,	- - - 33
For whom bonds were taken,	- - - 50
Who died on the voyage,	- - - 7
	14,623

The emigration to Boston was one-third larger than the year before, and a still larger emigration would have taken place, but for the war upon the continent of Europe. The year was one of unusual health among emigrants; no cases of ship fever, yellow fever, or small-pox appeared, although the small-pox was unusually prevalent with us on land.

The whole number of persons who, through their own desire or the desire of their relatives or friends, were returned to Europe, and other places out of the United States, other than Canada and the British Provinces, was 181. The total amount paid for their passage was \$4,712 95, the net cost to the State being \$26 38 for each person so sent. In addition to the above number, 1,103 persons were sent to various places in the United States, the Canadas, and British Provinces, where they had a home or friends; the whole cost of their transportation was \$2,228 70, or \$2 02 each.

The character of the emigration was very good during this year, and a very small portion of those who landed were obliged to seek aid from the State. The number aided by the State were as follows, viz:

13 at Rainsford Island Hospital, 108 weeks 4 days, or averaging 9 weeks 1 day, at \$2 50 each per week; at an expense of \$22 86 for each, or a total expense of \$297 18.

17 at Tewksbury Almshouse, 88 weeks, or averaging 5 weeks 5 days, at \$1 25 each per week; at an expense of \$7 15 each, or a total expense of \$121 55.

3 at Bridgewater Almshouse, 40 weeks 3 days, or averaging 13 weeks 4 days each, at \$1 25 each per week; at an expense of \$16 97 each, or a total expense of \$50 91.

3 at Monson Almshouse, 7 weeks, or averaging 2 weeks and 3 days, at \$1 25 each per week; at an expense of \$3 04 each, or a total expense of \$9 12.

36 in all, at a total expense of \$478 76.

The present system of charitable pauper institutions was instituted in the year 1854.

The whole number of alien passengers landed at the port of Boston, from 1854 to 1859, is 91,433. Of this number but 3,396 had been in our almshouse during that period:

1,554 at Tewksbury Almshouse, 23,457 weeks, or averaging 15 weeks each, at \$1 25 per week; at an expense of \$18 75 for each, or a total expense of \$26,138.

1,145 at Bridgewater Almshouse, 15,168

weeks, or 13 weeks each, at \$1 25 per week, is \$16 25 each, or a total expense of \$18,606.

697 at Monson Almshouse, 9,138 weeks, or 13 weeks each, at \$1 25 per week, is \$16 25 each, or total expense of \$11,301.

Expense of the 3,396 to the State, \$56,045.

Whole amount of money received by superintendent of alien passengers, from 1854 to 1859, is \$137,033 91. Whole expense of collecting the same, \$34,000. Amount refunded to persons leaving the State, \$16,278.

Cost of supporting the 3,396 paupers who landed in Boston, as above stated, \$56,045.

Net proceeds of office remaining in treasury, \$30,710 91.

A BEQUEST IN SUPPORT OF FEMALE MEDICAL EDUCATION.

The late Hon. John Wade, of Woburn, left over \$20,000, in value, to the Female Medical College, of this city. There was some trouble about the will, which has been terminated, and the provisions of the will secured to the College. The trustees recently held a meeting to take some suitable notice of the bequest, and passed the following resolution:

Whereas, The late Hon. John Wade, of Woburn, gave proof of his interest in the prosperity of this institution, and the object it is designed to promote, by the bequest of over twenty thousand dollars in value, "for the support and medical education of worthy and moral indigent females," together with a fund of over five thousand dollars in value, for the purpose of endowing a professorship, when the amount shall have accumulated to ten thousand dollars: and *whereas*, The Board of Trustees are desirous of expressing their appreciation of this generous benefaction; therefore,

Resolved, That the fund left to the College, by the Hon. John Wade, for the aid of students in obtaining their medical education, be called "The Wade Scholarship Fund," and the professorship, for the endowment of which he provided, be called "The Wade Professorship."

The Scholarship Fund consists of six brick houses, in this city, yielding an annual rentage of about \$2,500. The amount that has accumulated since the decease of the testator, in July, 1858, is about \$5,000, which will be paid over to the College within a few weeks.

DIPHTHERIA.

Diphtheria seems to be, according to accounts, an old visitor in New England. It visited this country as long ago as 1737, and raged with great violence.

Parson Smith alludes to it in his Journal. Under date of October 31st, 1737, he says a fast was held on account of this throat distemper. It was an epidemic, and, commencing at Kingston, New Hampshire, spread through New Hampshire and Massachusetts, and was two years in reaching the Hudson river. In New

Hampshire, not less than one thousand persons fell victims to this malignant disease; and in Boston four thousand had the disease, and one hundred and fourteen died. In May, 1737, Parson Smith mentions that seventy-five had died of it in this town. Under date of October 13th, 1737, he says: "The distemper is still bad at Scarborough. No one has lived that has had it of late."

It was the most fatal scourge that ever visited New England, and rapidly hurried its subjects to the grave; the throat swelled, became covered with ash-colored spots; great debility and prostration ensued, with putrefaction.

SANITARY REFORM IN MASSACHUSETTS.

I extract the following from the "Observations" of Dr. Curtis, which accompany the last Registration Report.

The contrast in the rates of mortality in city and country, in Massachusetts, is most striking and universal. How much of this excess in cities is unnecessary, because preventable, it is not possible, with our present knowledge, to decide. But, that great improvements can and ought to be made, there is not the shadow of a doubt. It is not so much the unusual prevalence of any epidemic, which is temporary, as the usual number of excessive deaths to which we have become accustomed, that in the aggregate destroys the lives of such numbers of our fellow-beings. No well-informed person can contemplate the lack of sanitary measures on the part of municipal authorities and individuals, so clearly manifest in all our cities, without the most convincing evidence that *a great work is yet to be done*, for which nature offers a premium, the salvation of thousands of human lives and relief from an untold amount of sickness, besides the incalculable pecuniary as well as moral benefits which would necessarily flow therefrom. Who, with competency and courage, will take the lead? and who will lend a helping hand?

In Massachusetts, the city whose records show the greatest increase in the death rate is Springfield. With an average annual rate of 17 in 1,000 living during the five years, 1853-'57, it increased to nearly 22 in 1,000 in 1858, and 25½ in each 1,000 living in 1859. What causes have contributed to such a melancholy result is well worthy of serious investigation, and should arrest the attention of government of that city. M.

FOREIGN CORRESPONDENCE.

MEDICAL MATTERS IN SPAIN.

Cadiz, February 3d, 1861.

MESSRS. EDITORS:—While in Seville I visited both the hospitals in that city, and I shall endeavor to give you some idea of them. The large and important one combines in itself two branches, the civil and the military. It is un-

der the control of the government, but is, nevertheless, as I was informed, very badly managed. The building in which it is situated was given for that purpose by a widow. It is a very large, stone building, four to six hundred feet long, and probably of nearly the same width. It is two stories high, and contains four large courtyards filled with orange and lemon trees, which, being green at this season of the year, produce a very beautiful effect.

The civil department can contain 557 patients, and the military department about the same number. At present, however, the number of patients is not great, and a large majority of the beds in the wards into which I went, were vacant. I asked if the hospital was ever full, and was told that it was during the African war; but usually Seville, with its population of 100,000 to 130,000, cannot go very far toward filling it. There are six physicians, each with his own particular wards. The wards are named after various saints, usually, but I noticed one named after the Holy Ghost—Sala del Espiritu Sanctu.

As a matter of course, there is a chapel connected with the hospital. It is as large as a church of average size in Philadelphia, and is very massively built. There are several pictures in it, which they value very much, among them two or three small ones by Murillo, whose paintings are very abundant in this part of Spain.

For those patients who are too sick to leave their beds for the purpose of attending mass, there are altars erected in the wards. I noticed two, both of them in places where four wards met, so that a large number of the patients could, without being moved, witness the ceremonies.

These altars are usually kept covered with a black cloth, so that they appear more like a canopy over a coffin than anything else.

The other hospital in Seville might, with more propriety, be called an infirmary, as it is intended only for the old, or for those afflicted with incurable diseases. I visited it not on account of its interest in a medical point of view, but only to see three or four of the most celebrated pictures of Murillo, which are to be found there, in the chapel, in the very places for which they were originally painted. There is a very pretty fountain in the centre of the courtyard, around which this hospital is built, and this, I have no doubt, is of great use in the summer to aid in keeping them cool. I saw, in passing through the courtyard, two or three of the old men sunning themselves. The name of this hospital is La Curidad.

Since I have been in Cadiz I have visited the Medical School here, which is a branch of the University of Seville, having been removed

here from Seville, where it at one time was. It, however, although a department of a University, has no power of conferring the degree of Doctor, that being confined to the University of Madrid, which has the monopoly of giving that degree, not only in medicine but in all branches of education. The other schools can confer only the licentiate ship. This arrangement is very recent, having gone into effect in 1856. Very few, however, go to Madrid to get the degree, as they can practice medicine just as well without it, although to be appointed professor it is necessary to be M. D.

The medical school here has 160 or 170 students, of which, however, no more than 50 are ever in attendance on any one professor, except in case of an operation.

I saw three lecture rooms, the largest of which would perhaps hold 200, but the others less than 100.

The length of the course for licentiate is five years. To become Doctor another year at Madrid is necessary.

At the side of the medical school, and between it and the hospital, is the botanical garden, which, however, is very small, in comparison with the others which I have seen. But, however small, I have no doubt it is of great use. In the hospital I saw nothing specially worthy of notice, except the dissecting room, which was the largest I ever have seen, with very high ceilings. The tables were of marble, and everything was scrupulously clean. I saw one subject only in the room. I was informed that dissecting is carried on all the year round; they do not allow even the intense heats of their summer to interrupt them. The character of the wards of the hospital was the same as that of most of the Spanish hospitals which I have visited, large and clean, but with rough walls, floor of uneven stone or of tiles, and the rafters showing in the ceilings. There are two stories, the lower is used for soldiers, and the upper for civil purposes. This upper story can contain 180 men, and 40 or 50 women.

Very truly yours,

M. D., ABROAD.

Arsenical Poisoning.—At a meeting of the French Academy, on the 6th inst., an essay by M. Fasoli, on the Employment of the Sulphuret and Sesquioxide of Iron as Antidotes in cases of Poisoning by Arsenious Acid, was read. Nineteen dogs, it appeared by this paper, were experimented on and dosed with arsenic: to five out of the number, no counter-poison was administered—they were left to their fate, and all died; out of the fourteen others, to whom considerable doses of hydrated sesquioxide and sulphuret of iron were given, only two died—a result which powerfully upholds the already good reputation enjoyed by these two salts as arsenical counter-agents.

NEWS AND MISCELLANY.

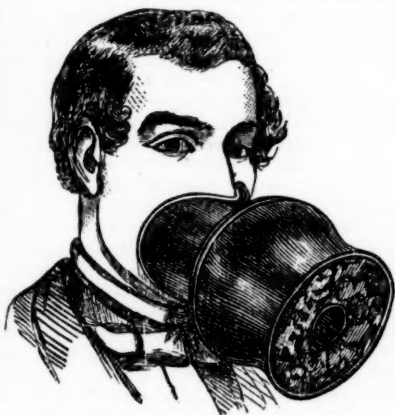
Luther's Inhaler.—The ordinary method of administering anæsthetics from a saturated sponge or napkin, is admitted to be safe, but is attended with some disadvantages and inconvenience. Among these may be mentioned:

1. The waste of the anæsthetic, a comparatively small portion being actually inhaled by the patient, the greatest amount evaporating in the air of the room.

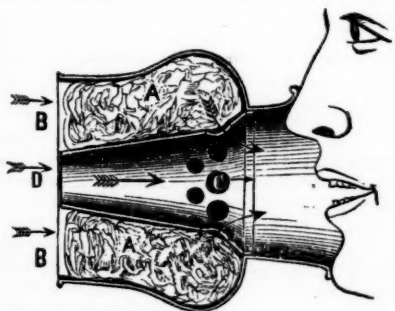
2. The operator and assistants are often much inconvenienced by this excess of vapor.

3. The anæsthetic is liable to come in contact with the patient's face, either from touching with the sponge, or, if it is profusely used, by dripping, and some sensitive skins are thus irritated, or, as we have seen, even vesicated.

The contrivance of a safe, convenient, and cheap means of overcoming these disadvantages, is important, and the instrument illustrated by the accompanying cuts is the most



efficient, and, at the same time, the simplest that we have seen. It has the advantage of continuing the use of the sponge, which, from its po-



rous and absorbing qualities, cannot well be substituted, but, at the same time, prevents any wasteful escape of the vapor. A free admission

of atmosphere is insured, and the exhaled breath of the patient, owing to the peculiar form of the instrument, cannot be again respired.

Without claiming for any form of inhaler much more than simple economy and convenience, we incline favorably toward this instrument, after having used it in a few instances. In these cases, an exceedingly small quantity of the anæsthetic was required, and, perhaps generally, by its use three-fourths of the usual amount might be saved.

The cost of the instrument, which is neatly made, and silver plated, is but three dollars and a half. All desiring to see or purchase the article, are referred to the advertising columns.

A Coroner's Jury, who, we suppose, were of the motley character of which that tribunal is generally composed, have censured in their verdict Dr. Watson, of Chester, for having prescribed a liniment containing opium to be applied to the side of the mother while her infant was suckling. It certainly is a novel medico-legal theory, and worthy of the scientific character of the intelligent jury, that a child could be poisoned by opium introduced into the system in such a manner, or that any agent could find its way by such means into the digestive system of the infant.—*Dub. Med. Press.*

White Gunpowder.—The London correspondent of the *Leeds Mercury* says:—"I have heard in the city of a curious invention, which concerns alike sportsmen, riflemen, and the scientific. It is the manufacture of "white" gunpowder. It is composed of yellow prussiate of potassa, chloride of potassium, loaf sugar, crystallized sugar, and brimstone. It possesses superior qualities over the black powder, being quicker and more powerful in its action, and not fouling the gun; for the delicate in the olfactory nerves it may be added that it is without unpleasant smell. It has just been patented."

Fecundity.—At Dowlais there is a woman still living, only 45 years of age, who is the mother of 33 children. She married at 14, and became a mother at 15. She is the wife of a working man in humble circumstances, and she has given birth twice to three children, three times to four, and six times to twins!—*Essex Herald and News and Library.*

The Medical and Surgical News says that the class of the Cincinnati College of Medicine and Surgery, for the session just closed, numbered one hundred and twenty-seven. There were thirty-six graduates.

The Annual Commencement of Jefferson Medical College takes place at Musical Fund Hall to-day. The charge to the graduates will be delivered by Prof. Mitchell.

Physiological Opinions of the Sixteenth Century.—The clearest, but most succinct account which I have met with of the physiological opinions of the sixteenth century, is in the wonderful melange of learning, dirt, and humor, "The History of Garagantua and Pantagruel," book iii., chap. 3. Rabelais, who was both a practising physician and a medical author, having translated and published some of the works both of Hippocrates and Galen, here condescends to place before the general public, and truly in the vernacular of his country, a concise account of the opinions which his brethren held it almost a matter of professional honor to conceal from the vulgar gaze, under the cloak of a dead language. So far as I am able to judge, however, this clear-sighted exposition is, in many respects, far in advance of the medical doctrines of the period, as might indeed have been expected from the almost miraculous insight of its author, whose disguise of buffoonery scarcely concealed a most unsafe originality of thought, and saved him from the dire penalties which would otherwise inevitably have attended it.

"The intention of the founder of this microcosm is, to have a soul therein to be entertained, which is lodged there as a guest with its host, that it may live there for a while. Life consisteth in blood; blood is the seat of the soul; wherefore, the chiefest work of the microcosm is to be making blood continually. At this forge are exercised all the members of the body; none is exempted from labor, each operates apart, and doth its proper office. And such is their hierarchy, that perpetually the one borrows from the other, the one lends the other, and the one is the other's debtor. The stuff and matter convenient, which nature giveth to be turned into blood, is bread and wine. All kinds of nourishing victuals is understood to be comprehended in these two, and from hence in the Gothish tongue is called companage. To find out this meat and drink, to prepare and boil it the hands are put to work, the feet to walk and bear up the whole bulk of the corporal mass; the eyes guide and conduct all; the appetite in the orifice of the stomach, by means of a little sourish, black humor, called melancholy, which is transmitted thereto from the milt, giveth warning to shut in the food. The tongue doth make the first essay, and tastes it; the teeth do chew it, and the stomach doth receive, digest, and chily it. The mesaraic veins suck out of it what is good and fit, leaving behind the excrements, which are, through special conduits for that purpose, voided by an expulsive faculty. Thereafter it is carried to the liver, where it being changed again, it by the virtue of that new transmutation becomes blood. What joy, conjecture you, will then be found amongst those officers, when they see this rivulet of gold, which is their sole restorative? No greater is the joy of alchymists, when, after long travail, toil, and expense, they see in their furnaces the transmutation. Then it is that every member

doth prepare itself, and strive anew to purify and to refine this treasure. The kidneys, through the emulgent veins, draw that aquosity from thence which you call urine, and there send it away, through the ureters to be slipped downwards; where, in a lower receptacle, and proper for it, to wit, the bladder, it is kept, and stayeth there until an opportunity to void it out in his due time. The spleen draweth from the blood its terrestrial part, viz: the grounds, lees, or thick substance settled in the bottom thereof, which you term melancholy. The bottle of the gall subtracts from thence all the superfluous choler, whence it is brought to another shop or work-house, to be yet better purified and fined, that is, the heart, which by its agitation of diastolic and systolic motions so neatly subtilizeth and inflames it, that in the right side ventricle it is brought to perfection, and through the veins is sent to all the members. Each parcel of the body draws it then unto itself, and, after its own fashion, is cherished and alimanted by it, feet, hands, thighs, arms, eyes, ears, back, breasts, yea, all; and then it is that who before were lenders, now become debtors. The heart doth in its left side ventricle so thinify the blood, that it thereby obtains the name of spiritual; which being sent through the arteries to all the members of the body, serveth to warm and winnow the other blood which runneth through the veins. The lights never cease, with its lappets and bellows, to cool and refresh it; in acknowledgement of which good, the heart, through the arterial vein, imparts unto it the choicest of its blood. At last it is made so fine and subtle within the rete mirabile, that, thereafter, those animal spirits are framed and composed of it; by means whereof the imagination, discourse, judgment, resolution, deliberation, ratiocination, and memory have their rise, actings, and operations."

This certainly is a nearer approach to Harvey's discovery than any I have elsewhere met with in the physiology of the period, and might, by a liberal interpretation, be taken to imply that what Shakspeare calls the "nimble spirits in the arteries," and "the vital commoners and inland petty spirits," was really blood which had been spiritualized or aerated in the lungs.

The origin of the old opinions appears to have been the following passage in Hippocrates' "Book on Aliments:" "The root of the veins is the liver, and the root of the arteries is the heart: and from them blood and spirits are carried to all parts, and heat passes with the same."—*Bucknill on the Medical Knowledge of Shakspeare.*

A Roman or Hot-Air Bath has been established in London.

Dr. Horatio R. Storer has opened in Boston an establishment for the treatment of the Diseases of Women.

Science at the Bottom of the Sea.—Dr. C. Wallich, who accompanied the recent expedition to survey the projected North Atlantic telegraph route between Great Britain and America, has brought back some important notes of new facts in natural history which he has ascertained. His main object was to determine the depth to which animal life extends in the sea, together with the limits and conditions essential to its maintenance. He has proved that, at a depth of two miles below the surface, animal life exists. Here, where the pressure is calculated to amount to at least one ton and a half per square inch, and where it can hardly be conceived that the most attenuated rays of struggling light can penetrate, Dr. Wallich has not only discovered the minute infusorial *Foraminifera*, whose calcareous envelopes protect them from pressure, and whose organization is of the simplest; but he has obtained from a sounding, twelve hundred fathoms deep, a number of star-fishes (genus *Ophiocoma*) adhering to the lowest fifty fathoms of the deep-sea line, which must have rested on the bottom for a few minutes, so as to allow those star-fishes to attach themselves to the rope; so that it is now established that, in these regions of watery desert and everlasting darkness, there exists "a highly organized species of radiate animal, living, entwining, and flourishing, with its red and light pink tints, as clear and brilliant as its congeners which dwell in shallow and comparatively sunshiny waters." Others, doubtless, exist; for this is but a first inquiry so conducted, and in time we may come to hear of a new submarine fauna peopling these dark abodes, and preparing this subaqueous floor just as the land on which we now walk, once submerged, is believed to have been prepared.

The New Sydenham Society.—This society seems to be in a flourishing condition. At its second annual meeting, held in Torquay, on the 2d of August, it was stated, 1st, that the society now numbers 2,850 members, and is still steadily increasing; 2d, that the second edition of the first year's volumes had been almost exhausted, and that it had reimbursed the expenses attending the reprinting; 3d, that the council had finally decided on the issue of an Atlas of Illustrations of Skin Diseases, to be selected chiefly from those published by Hebra, of Vienna; 4th, the issue of the first fasciculus of these portraits will take place for the current year, and will probably be ready in December; 5th, the council hopes to be able to issue for each year's subscription the Annual Year-book and a Fasciculus of the Portraits, and, in addition to these, two translated volumes; 6th, among the works at present in course of preparation are the second volume of "Frerichs on Diseases of the Liver," "Vogel and Neubauer's Handbook on the Examination, etc., of the Urine," "Casper's Medical Jurisprudence," and a reprint of Smellie's Midwifery, with

preface and annotations by Professor Simpson, of Edinburgh.—*Medical Times and Gaz.*

Dr. Richard J. Dunglison is an honorary secretary resident in this city, to whom communications relating to membership of the society and its publications may be addressed.

A Climbing Fish.—At the last meeting of the Boston Society of Natural History, held Jan. 2d., Dr. Bryant presented, in the name of Mr. Henry Morse, two specimens of the siluroid genus *Calliethys*, a fish from Surinam, which is said to climb trees. Professor Agassiz and Dr. Pickering mentioned the genera *periophthalmus*, *anabas*, and *gobiesox*, which have the property of existing a considerable time out of water, and might ascend the trunks of trees inclining into the water. Dr. Pickering observed that he had found *gobiesox* in Peru forty feet above the water on shore, and had seen *periophthalmus* hopping about over the mud in the manner of frogs.

Army and Navy Intelligence.—A Board of Naval Surgeons convened at the Naval Asylum in this city, on the 1st inst., for the examination of Assistant-Surgeons for promotion, and candidates for admission into the Medical Corps of the Navy.

The following Surgeons compose the Board: James M. Greene, M. D., President; J. M. Foltz, M. D., and C. H. Wheelwright, M. D., members; Passed Assistant-Surgeon Jno. F. Taylor, M. D., Recorder.

Assistant-Surgeon Stewart Kennedy and William Johnson, Jr., have been ordered, and Assistant-Surgeons A. M. Vedder, P. S. Wales, and A. C. Gorgas have received permission, to appear for examination for promotion.

The three last named have not been in the Navy the required time to entitle them to an examination, but as the exigencies of the service may require them at sea, when the next Board meets, they have been permitted to appear before this Board. Should they pass, they will not receive their rank as Passed Assistant-Surgeons, or additional pay, until the expiration of five years from the date of their entry into the service.

Assistant Surgeon C. Brewer has been assigned, temporarily, to duty in the city of St. Louis, and ordered to report to Surgeon S. G. J. DeCamp, for instructions.

Dr. D. Warren Brickell retires from the New Orleans *Medical News and Hospital Gazette*, and Dr. Anthony A. Peniston takes his place. If Dr. Peniston shall be so fortunate as to fill his place, the profession will be measurably, at least, reconciled to the loss of Dr. Brickell. Dr. Peniston's abilities as a writer are well known.

The Chicago Medical Examiner copies Professor Chapman's excellent paper on Ergot from our pages, but forgets to give us credit.

Snake Bites.—Dr. Young, of Mississippi, having asked, through the *New Orleans Medical and Surgical Journal*, whether professional experience bears out the popular notion that tobacco and alcohol are antidotes for the poison of serpents, and if so, what is their probable *modus operandi*—Dr. A. V. Warr, of Rossville, Tenn., responds as follows:

"Case 1st. In 1856 my father had a negro woman bitten on the leg, just over the course of the ant. tibial artery, by a copper-headed snake. (This occurred before I read medicine.) The pain and swelling were considerable, and as it was eight miles to the nearest doctor, he gave her whisky freely and poulticed the leg with cockle burs. After becoming intoxicated she got well, and on the next day went to work as usual. In order to show that this snake is poisonous, I will say, that I had a dog bitten by one of the same kind this spring, and it died.

"Case 2d. On the 24th of August, 1860, while taking up fodder, a negro of my father's was bitten on the foot, near the little toe, by a cotton-mouth snake. Pain intense; swelling considerable. I saw him in an hour after he was bitten, and at once gave him a gill of whisky, and applied a tobacco cataplasm to the bite. This occurred at 8 P. M.; 8½ o'clock, no better; pain extending up the leg; gave another gill of whisky. 9 o'clock, worse; pain getting higher; corded the leg above the pain; removed the tobacco and applied a poultice of cockle burs; gave one-half gill of whisky. 9½, slight symptoms of intoxication; pain not quite so severe, and no extension. 10, no symptoms of intoxication; pain returning; gave a gill of whisky and removed the bur poultice. 11, much better; 'fully drunk,' and but little pain. I should have stated that between 10 and 11 he vomited freely. Considering the boy safe, I retired. Some time after I retired my father covered the foot and leg with swamp mud, which I should have said he did in the first case.

"August 21st, 8 o'clock A. M. No pain, no swelling, and no unpleasant effects from so much whisky. On the 26th he went to work.

"Prof. Smith, of the University of Pennsylvania, recommended the free use of whisky in 1857-8. Dr. H. Green, an eminent doctor of Arkansas, also recommends it highly, with aqua ammonia externally.

"I believe that to the whisky, alone, the two cases above owe their cure. I have no experience with tobacco internally, nor any theory as to the *modus operandi* of whisky."

"*Eclecticism*" seems to be on the wane in Cincinnati. According to the *Lancet and Observer*, the "Eclectic Medical Institute," of that city, which, a few years ago, claimed a class of between two and three hundred, had only sixty-five matriculants during the last winter session.

Medical Commencements.—At the annual commencement of the Medical Department of Pennsylvania College, held in this city on Saturday last, the President, Rev. Dr. Baugher, conferred the degree of Doctor of Medicine on thirty-eight graduates. The *ad eundem* degree was conferred on eight, and the honorary degree on one practitioner of medicine.

The valedictory was pronounced by Prof. B. Howard Rand, M. D.

The twenty-fourth annual commencement of the Medical College, attached to the New York University, was held on Monday evening, March 4th. The Chancellor (Ferris) read a list of one hundred and twenty-nine graduates, on whom the degree of Doctor of Medicine had been conferred.

In addition to the above list the Chancellor stated that there were six members of the graduating class who had successfully passed the examinations, from whom diplomas had been withheld on account of their age, neither being yet 21. The Chancellor then awarded the diplomas to the graduates in the usual manner. The Mott medals, two in number, were awarded to Eugene S. Olcott, of New York, and Montefirre J. Moses, of Georgia, for excelling in anatomical productions. The first medal is of gold, and valued at \$65; the second is of bronze. The Metcalf prizes for the best records of the clinical lectures, were awarded to William R. Reypen and Alexander R. Gebbie. The Van Buren prizes, consisting of two cases of instruments, were awarded to John D. Murphy and William R. Reypen.

The valedictory was pronounced by Professor Alfred C. Post.

We clip the following from an exchange:

A Good Site.—Corsica is in many respects a desirable place to live, and a physician of some experience would meet a welcome reception. It is desired he should be a member of the Presbyterian Church, as the congregation in this neighborhood numbers over three hundred members. A good office and dwelling-house can be had on reasonable terms, either for rent or sale. It is hoped some man of experience may accept of the call. Any one wishing further information will address W. J. Kelly, or M. Rodgers, Corsica, Jefferson county, Pa.

The late Dr. Francis.—At a meeting of the Board of Governors of the Woman's Hospital of the State of New York, held on the 28th ult., resolutions of respect for the memory of the late Dr. John W. Francis, who was one of its members, were passed. It was ordered that, to perpetuate his name and good deeds, a tablet to his memory, appropriately inscribed, be placed in one of the wards of the Woman's Hospital, when completed, and that said ward shall bear his name.

Medical Service in the Navy and Army.—The following information will be of interest to those desiring position in these departments of the public service.

Applications for the post of Surgeon or Assistant Surgeon in the Army or Navy must be made directly to the Secretaries of War or the Navy respectively.

"1153. A board of not less than three medical officers will be appointed from time to time by the Secretary of War, to examine applicants for appointment of assistant surgeons, and assistant surgeons for promotion. And no one shall be so appointed or promoted until so examined and found qualified.

"1154. The board will scrutinize rigidly the moral habits, professional acquirements, and physical qualifications of the candidates, and report favorably, either for appointment or promotion, in no case admitting of a reasonable doubt.

"1155. The Secretary of War will designate the applicants to be examined for appointment of assistant surgeon. They must be between 21 and 28 years of age. The board will report their respective merits in the several branches of the examination, and their relative merit from the whole; agreeably where to, if vacancies happen within two years thereafter, they will receive appointments and take rank in the medical corps.

"1156. When an assistant surgeon has served five years, he is subject to be examined for promotion. If he decline the examination, or be found not qualified by moral habits or professional acquirements, he ceases to be a medical officer of the army.

"1157. An applicant for appointment failing at one examination, may be allowed a second after two years, but never a third."

The rules which govern the appointment and promotion of medical officers in the navy are in the same spirit; the chief difference is that the navy rule judiciously restricts appointments to persons between 21 and 25 years, and permits candidates to compete for appointment as frequently as they please, provided they do not exceed the limits of age prescribed. In both services examination for promotion takes place after five years' service, and if the candidate fails to prove himself qualified, he loses his commission and returns to private life. This contingency must prove an efficient stimulant to assistant surgeons who desire to secure their own advancement; for it seems to be addressed to two tender points of human character, known to phrenological readers under the names, "acquisitiveness" and "approbateness," and to others, by the terms "cupidity and vanity." As candidates cannot "cram" for these exami-

tions in a very short time, those of much foresight, begin to prepare to become surgeons from the hour they are appointed assistants, and are rewarded, but those who rely solely upon a special preparation during three or four months just prior to the trial, furnish the unfortunates of the occasion.

The remuneration for medical services in the army is stated in the following table:

	Pay per month.	No rations daily.	Forage for horses.		No. serv'ts.	Highest annual pay in peace.
			In war	In peace		
Ass't Surg. less than 5 years' service.	\$53 33 1/2	4	2	1	1	\$1,444 50
do of 5 years service.	70 00	4	3	1	1	1,644 50
do of 10 years service.	70 00	8	3	1	1	2,300 50
Surgeon, less than 10 years' service.	80 00	4	4	3	2	2,549 00
do of 10 years service in that grade.	80 00	8	4	3	2	2,655 00

Officers' subsistence is commuted at 30 cents per ration; forage at \$8 per month for each horse *actually owned and kept in service.*

Officers are entitled to the pay of a private soldier (\$11 per month) and \$2 50 per month, clothing and one ration per day, for each private servant *actually employed.*

Every commissioned officer below the rank of Brigadier-General is entitled to one additional ration per day for every five years' service: this is termed the "longevity ration," and is worth \$107 50 annually.

Rather Shaky!—Ex-Mayor Tiemann, of New York, is one of the "eminent supporters" of homœopathy in that city, and, of course, he is "used" for the purpose of giving eclat to the proceedings on special occasions. In the following extract from his address before the graduates of the Homœopathic College in that city, recently, he gives evidence of equivocal friendship to the "system." The faith of a goodly proportion of the supporters of homœopathy is about as *facile* as that of Mr. Tiemann:

"You go forth as healers of the people, and remember, gentlemen, your office is to cure the sick. You need not stick alone to homœopathy; if that will not cure, try allopathy. If allopathy fails try hydropathy, and if you are not then successful, adopt spiritualism, or any other curative means that may be at hand!"

Dr. J. H. Butler, who has for some years been resident physician at the Baltimore Infirmary, has been appointed Demonstrator of Anatomy in the University of Maryland.

Wills Hospital.—At a meeting of the Board of Managers, held on Monday last, Dr. George C. Harlau was elected one of the Attending Surgeons.

Stimulants.—The following, taken from the *Louisville Journal*, of which the inimitable Prentice is editor, expresses some important truths in beautiful language:—"There are times when the pulse lies low in the bosom and beats low in the veins; when the spirit sleeps the sleep, apparently, that knows no waking in its house of clay, and the window shutters are closed, and the door hung with the invisible crape of melancholy; when we wish the golden sunshine pitchy darkness, and are very willing to fancy 'clouds where no clouds be.' This is a state of sickness when physic may be thrown to the dogs, for we will have none of it. What shall raise the sleeping Lazarus? What shall make the heart beat music again, and the pulses dance to it through all the myriad thronged halls in our house of life? What shall make the sun kiss the Eastern hills again for us, with all its own waking gladness, and the night overflow with 'moonlight, music, love, and flowers?' Love itself is the great stimulant—the most intoxicating of all—and performs all these miracles; but it is a miracle itself, and it is not at the drug store, whatever they say. The counterfeit is in the market, but the winged god is not a money changer, we assure you. Men have tried many things—but still they ask for stimulants. The stimulants we use, but require the use of more. Men try to drown the floating dead of their own souls in the wine cup, but the corpse will rise. We see their faces in the bubbles. The intoxication of drink sets the world whirling again, and the pulses playing wildest music, and the thoughts galloping—but the fast clock runs down sooner; and the unnatural stimulation only leaves the house it fills with wildest revelry, more silent, more sad, more deserted, more dead. There is only one stimulant that never fails, and never intoxicates—Duty. Duty puts a blue sky over every man—up in his heart it may be—into which the skylark, Happiness, always goes singing."

Cotton as an Under-Dress.—Dr. W. D. Johnson writes as follows to the *New Orleans Medical and Surgical Journal*:—"You frequently ask for practical suggestions and facts from your contributors. In accordance with that request, I proceed to give you some facts in relation to the beneficial effects of wearing cotton next the skin in winter, as being most conducive to health, comfort, and economy."

"In the fall of 1847, Major Simeon Oliver, our present Senator from this county, informed me he had several years before discarded woolen undershirts and drawers, and had worn the common Osnaburg for that purpose. The Major being a very sensible man, and having tested the two kinds of goods, I resolved to try the thing myself. After wearing the Osnaburg for two or three winters, I was fully satisfied that it was altogether superior to any silk or woolen underclothes I had ever worn. I began

to suggest the thing to my friends, who, one after another, adopted the plan, until now very many of my patrons wear no wool next the skin, having not only abandoned the woolen shirts and drawers, but the socks also. As a consequence of this, I think colds, coughs, and pneumonia are less frequent and malignant than heretofore."

"The Osnaburg is rough at first, but we soon become accustomed to it, and become rather fond of it than otherwise. I will not attempt to give any theoretic views in regard to the *modus operandi* of the action of the Osnaburg on the skin, or the reason why it imparts more warmth than the wool; but will ask all who are desirous to enjoy health and comfort at a cheap rate, to try it, more particularly those who have to resort to flesh-brushes and frictions to preserve health."

Railway Accidents.—Upon the railways of the United States, during the year 1860, the number of persons killed has been 57; wounded, 315. By steamboat—killed, 597; wounded, 134; besides the Lake disasters, by which 560 were killed (lost.) The following table shows the comparative losses by boat and by railway for several years past:

Year.	RAILWAY.		STEAMBOAT.	
	Killed.	Wounded.	Killed.	Wounded.
1853 - -	234	496	319	158
1854 - -	186	589	587	225
1855 - -	116	539	176	107
1856 - -	195	629	538	127
1857 - -	130	530	322	86
1858 - -	119	417	300	107
1859 - -	129	411	342	146
1860 - -	57	315	597	134
Total,	1,166	3,926	3,001	1,090

Total killed and wounded by railway, 5,092; and by steamboat, 4,091. The wounded by railway are large, because the result of most railway accidents is wounding, not killing. The steamboat lists do not include the losses on the great Lakes, or at sea, but only on the inland river routes. The balance of safety is thus seen to be very much in favor of railways; but the true mode of comparison is by means of the ratio of persons injured to the number carried; when the immense number carried by railway is taken into account, the safety preponderates vastly in favor of that mode of transport.

Aneurism of the Abdominal Aorta, causing Absorption of the Vertebra and Bursting into the Spinal Canal.—A few days ago, Prof. PEPPER showed to his class the specimen of a large aneurism of the abdominal aorta, which had caused entire destruction by pressure of the bodies of cart dorsal vertebra, exposing the medulla spinalis, and had finally burnt into the canal. Death from hemorrhage was, of course, immediate.

Intra-Uterine Fractures.—Mr. B. E. Brodhurst read a paper on this subject before the Royal Medical and Chirurgical Society, (March 27, 1860.) He commenced by referring to some points of distinction which have been observed in fractures in utero. He stated that fractures might be simple or compound—disunited or reunited at birth; or that solution of continuity might be owing to imperfect ossification and congenital rickets. Having alluded to these several varieties, he proceeded to remark especially on reunited fractures in utero; and he quoted cases from Ploucquet, Kopp, Devergie, Carus Schubert, Sachse, and Moffatt, relating, also, to cases which had occurred in his own practice. The causes of intra-uterine fracture were lastly considered; and it was stated that neither contra-coup nor compression by the walls of the uterus could act so as to produce fracture, so long as the membranes—the chorion and amnion—remained entire; but there was no reason to believe that intra-uterine fractures occurred as effects of physical injuries—that the origin of these fractures and of congenital distortions were similar, and that they were occasioned by abnormal muscular action. Two cases of congenital double club-hand and double club-foot were adduced as examples of the mode in which abnormal muscular action and distortion are induced in the fœtus; and moreover, the author stated his belief that, in these cases, whether of fracture or distortion, the effect varies as the cause varies, and that temperament or other like condition may probably also modify the effect.—*Medical Times and Gazette.*

DIED.

BALY.—Dr. Baly, Chief Physician to the Queen of England, has been killed by a railway accident.

HARRIS.—In this city, on Sabbath morning, March 3d, Dr. William Harris, æt. 68 years.

LEWIS.—In Eatontown, Monmouth county, N. J., Feb. — Dr. J. P. Lewis, in the 74th year of his age.

HARRIS.—In this city, on Monday, March 4th, Dr. Thos. Harris, U. S. Navy, in the 78th year of his age.

RESPECT TO THE LATE DR. HARRIS, U. S. N.—The following resolutions were adopted by the Naval Medical Board, now in session at the Naval Asylum:

Whereas, The Naval Medical Board have heard with much regret of the death of Dr. Thomas Harris, the senior surgeon in the Navy of the United States; therefore, be it

Resolved, That in the death of Dr. Thomas Harris the Medical Corps of the Navy has lost one of its most talented and distinguished members; that as a surgeon, an officer, and a gentleman, he commanded the respect and admiration of all who knew him, and that we deeply lament his loss.

Resolved, That we attend his funeral as a body, that these resolutions be placed on our record, and that a copy of them be presented to his family with our condolence.

Signed, JAMES M. GREENE, Pres't.
J. Y. TAYLOR, Recorder.

Answers to Correspondents.

Dr. L., South Carolina.—We do not apprehend any difficulty in transmitting the *REPORTER* regularly. We send weekly to subscribers in all parts of the South, and shall hold ourselves responsible to all who pay their subscriptions for the worth of their money.

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